

### Self-Study Report (SSR) - **Criterion-1**

#### Information to be submitted by Departments/Directorates/Centres for **Each Programme Offered**

<b>1</b>	<b>Department/Directorate/Centre/Institute:</b>	<b>Department of Botany, North Campus, University of Kashmir</b>	
<b>2</b>	<b>Name of the Programme Offered:</b>	1. I-BOT 2. I-PhD / PhD	
<b>3</b>	Departmental website link of the complete/updated syllabus:	<a href="https://nc.uok.edu.in/Main/List.aspx?Type=Download">https://nc.uok.edu.in/Main/List.aspx?Type=Download</a>	
<b>4</b>	<b>Number of Courses in the Programme?</b>	1. I-BOT: 30	2. PhD : 12
<b>5A</b>	Number of New Courses introduced in the Programme since 2019? <b>NA</b>	NA	
<b>5B</b>	List of <b>New Courses</b> introduced since 2019:	NA	
<b>5C</b>	Departmental website link in support of New Courses introduced in the Programme since <b>2019</b> .	NA	
<b>6A</b>	Dates of syllabus revisions during the last five years. <b>(2019-2023)</b>	NA	
<b>6B</b>	Departmental website link in support of syllabus revisions.	The department was introduced in 2023	
<b>7</b>	Are Programme Outcomes (POs) clearly mentioned in the syllabus? <b>(Y/N)</b>	Yes	
<b>8</b>	Are the Course Outcomes (COs) mentioned for each course of the programme? <b>(Y/N)</b>	Yes	
<b>9A</b>	Does POs & COs have relevance to local, regional & global developmental needs? <b>(Y/N)</b>	Yes	
<b>9B</b>	List of courses addressing <b>Local Needs:</b>		
	<b>Course Code</b>	<b>Course Title</b>	<b>Brief Justification</b>
	IXXXVAES0023 & IXXXMDES0023	Environmental Science Education & Environmental Issues and Sustainability	Educating the local population about environmental issues and sustainability will help in the preservation of natural resources and address challenges like deforestation, waste management, and habitat destruction, which are critical in Baramulla's context.
	IXXXVAHW0023	Health and Wellness	Establishing strong health and wellness programs will promote preventative care, mental health awareness, and improve healthcare accessibility, especially in rural and underserved communities.
	IXXXSEPM0124	Propagation of Medicinal and Aromatic Plants	The propagation and sustainable cultivation of medicinal and aromatic plants can boost local livelihoods, support traditional medicine, and provide opportunities for creating herbal-based products for both local consumption and export.

	IXXXVADT0023	Digital and Technological Solutions	Digital literacy and access to technological solutions can bridge gaps in education and healthcare delivery, improve agricultural practices, and open up new avenues for economic development through e-commerce and online services.
	IXXXSEFP0224	Techniques of Fruit Processing & Preservation	Training in modern fruit processing and preservation techniques will help reduce waste, increase shelf life, and provide better market access for local produce, benefiting farmers and local economies.
	IXXXSEST0323	Seed Technology	Training in modern seed technology, including the use of drought-resistant, high-yielding, and disease-resistant varieties, will improve the agricultural yield and income of local farmers, particularly in the face of climate challenges.
	IXXXSEMCO323	Mushroom Cultivation	Promoting mushroom cultivation can provide farmers with an additional source of income and improve food security, especially in areas where traditional farming practices face limitations due to soil or climatic conditions.
	IXXXAEKL0023	Kashmir' Language	Language programs will not only foster cultural identity but also improve communication, education, and social cohesion among the local population. Additionally, Kashmiri language education can aid in literature, tourism, and regional media development.
	1XXxAEAL0023	Arabic Language	Arabic language proficiency can enhance opportunities for local youth in religious studies, international diplomacy, and even trade, given the region's connection to the broader Muslim world.
	IBOTMJTCO523	Plant Tissue Culture	Techniques such as plant tissue culture can help develop disease-free plant material, improve crop yields, and provide a sustainable method of plant propagation, which can be particularly useful in the region's horticultural industry.
	IBOTMJIN0523	Ethnobotany	Research and education in ethnobotany can help conserve indigenous plant species, promote sustainable use, and provide valuable insights into local biodiversity, all of which can be beneficial for both scientific and community-based projects.
9C	List of courses addressing <b>Regional Needs:</b>		
	<b>Course Code</b>	<b>Course Title</b>	<b>Brief Justification</b>
	IXXXVAES0023	Environmental Science Education	The propagation and sustainable cultivation of medicinal and aromatic plants can boost local livelihoods, support traditional medicine, and provide opportunities for creating herbal-based products for both local consumption and export.
	IXXXSEST0323	Seed Technology	Training in modern seed technology, including the use of drought-resistant, high-yielding, and disease-resistant varieties, will improve the agricultural yield and income of local farmers, particularly in the face of climate challenges.
	IXXXSEMCO323	Mushroom Cultivation	Promoting mushroom cultivation can provide farmers with an additional source of income and improve food security, especially in

			areas where traditional farming practices face limitations due to soil or climatic conditions.
	IBOTMJTCO523	Plant Tissue Culture	Techniques such as plant tissue culture can help develop disease-free plant material, improve crop yields, and provide a sustainable method of plant propagation, which can be particularly useful in the region's horticultural industry
<b>9D</b>	List of courses addressing <b>Global Needs:</b>		
	<b>Course Code</b>	<b>Course Title</b>	<b>Brief Justification</b>
	IXXXVAES0023 & IXXXMDES0023	Environmental Science Education & Environmental Issues and Sustainability	Environmental science education equips individuals with the knowledge to make sustainable decisions, promotes conservation, and encourages green innovation globally. It also supports global environmental goals such as the UN's Sustainable Development Goals (SDGs), particularly Goal 13 (Climate Action) and Goal 15 (Life on Land).
	IXXXVAHW0023	Health and Wellness	Improving global health and wellness can help reduce healthcare costs, improve life expectancy, and ensure access to healthcare for all populations, supporting SDG 3 (Good Health and Well-being).
	IXXXSEPM0124	Propagation of Medicinal and Aromatic Plants	Medicinal plants are crucial for global healthcare systems, especially in developing countries where traditional medicine is widely used. This course supports biodiversity conservation, sustainable agriculture, and global health.
	IXXXVADT0023	Digital and Technological Solutions	Technology is at the heart of global progress, from education to agriculture to health. This course empowers students with digital skills needed to solve complex problems and improve systems worldwide.
	IXXXSEFP0224	Techniques of Fruit Processing & Preservation	Reducing food waste and improving food security are global priorities. This course teaches how to extend shelf-life and add value to agricultural produce, addressing both economic development and sustainability.
	IXXXMNAB0323	Bio-Industries	Bio-industries focus on renewable resources and sustainable production methods. This course supports green innovation, climate change mitigation, and bio-economy development globally.
	IXXXSEST0323	Seed Technology	High-quality seeds are fundamental for global food security and agricultural resilience. This course contributes to improved crop yields and adaptation to climate stress.

	IXXXSEMCO323	Mushroom Cultivation	Mushrooms are a sustainable protein source with low environmental impact. Cultivation techniques can boost food security, income generation, and resource efficiency globally.
	IBOTMJTCO523	Plant Tissue Culture	This biotechnology course helps with conservation of rare plant species, large-scale crop production, and pharmaceutical research, addressing needs in agriculture, biodiversity, and health worldwide.
	IBOTMJIN0523	Ethnobotany	Ethnobotany preserves indigenous knowledge and explores plant-based solutions to medical and ecological challenges. It bridges science and traditional wisdom to address global sustainability and health goals.
	IBOTMJIN0523	Internship/Field work/Practical	Field experiences develop real-world problem-solving skills and promote global competence through applied learning in diverse environmental and community contexts.
<b>10A</b>	<b>Does the Programme offer focus on Employability/ Entrepreneurship/ Skill development courses? (Y/N)</b>		Yes
<b>10B</b>	List of <b>Employability Courses</b> :		
	<b>Course Code</b>	<b>Course Title</b>	<b>Brief Justification</b>
	IXXXVAHW0023	Health And Wellness	Equips learners with knowledge of health practices, stress management, nutrition, and fitness—skills highly relevant in the wellness industry, fitness centers, healthcare support roles, and lifestyle coaching.
	IXXXSEPM0124	Propagation of Medicinal and Aromatic Plants	Practical skills in cultivating medicinal and aromatic plants are in demand in the pharmaceutical, herbal products, and organic farming sectors. Enhances employability in agro-based industries and self-employment ventures.
	IXXXSEFP0224	Techniques of Fruit Processing & Preservation	Prepares students for roles in food processing, quality control, and packaging industries. Offers potential for self-employment in food startups or cottage industries.
	IXXXMNAB0323	Bio-Industries	Introduces students to industrial applications of biology (e.g., biotechnology, biofuels, bioplastics). This aligns with growing opportunities in green industries and industrial R&D.
	IXXXSEMCO323	Mushroom Cultivation	A practical, income-generating skill that supports entrepreneurship and employment in the agribusiness sector. Highly suitable for small-scale enterprises and NGOs focused on sustainable farming.
	IBOTMJTCO523	Plant Tissue Culture	Teaches advanced plant propagation techniques useful in plant biotechnology, nursery management, and research labs. Valuable for

			careers in genetic engineering and agricultural innovation.
	IBOTMJIN0523	Ethnobotany	Useful for careers in research, ethnopharmacology, NGOs, and sustainable development projects, especially those related to indigenous knowledge and biodiversity conservation.
	IBOTMJIN0523	Internship/Field work/Practical	Provides hands-on industry exposure, workplace skills, and professional networking—all key for job readiness. This experience strengthens resumes and interview performance.
<b>10C</b>	List of <b>Entrepreneurship Development Courses:</b>		
	<b>Course Code</b>	<b>Course Title</b>	<b>Brief Justification</b>
	IXXXSEPM0124	Propagation of Medicinal and Aromatic Plants	Teaches cultivation and business opportunities in herbal medicine, aromatic oils, and cosmetics industries. Enables learners to start small-scale farms, nurseries, or processing units.
	IXXXSEFP0224	Techniques of Fruit Processing & Preservation	Provides technical knowledge for value addition in fruits—essential for launching homemade food brands, jams, juices, pickles, and agro-processing startups.
	IXXXSEMC0323	Mushroom Cultivation	A low-investment, high-demand agricultural enterprise. Students can start mushroom farms, training centers, or value-added product businesses (e.g., dried mushrooms, powder, snacks).
	IBOTMJTCO523	Plant Tissue Culture	Supports commercial plant production—ideal for establishing nurseries, lab-based ventures, and high-tech floriculture or horticulture enterprises.
	IXXXSEST0323	Seed Technology	Enables entrepreneurs to produce and sell quality seeds, set up mini seed enterprises, or engage in contract farming with seed companies.
	IXXXMNAB0323	Bio-Industries	Covers innovation in biotech, biofertilizers, biopesticides, and waste-to-wealth ventures. Encourages sustainable product-based startups.
	IBOTMJIN0523	Ethnobotany	Inspires enterprises based on traditional plant knowledge—such as organic health products, indigenous herbal remedies, and ecotourism or cultural knowledge hubs.
	IXXXVADT0023	Digital and Technological Solutions	Helps leverage digital tools for online business, e-commerce, marketing, or automation of small enterprises. Encourages tech-driven entrepreneurship.
<b>10D</b>	List of <b>Skill development Courses:</b>		
	<b>Course Code</b>	<b>Course Title</b>	<b>Brief Justification</b>
	IXXXSEPM0124	Propagation of Medicinal and Aromatic Plants	Builds hands-on skills in nursery management, propagation techniques, and plant care. These are practical competencies directly applicable in herbal industries, farming, and plant-based entrepreneurship.
	IXXXSEFP0224	Techniques of Fruit Processing & Preservation	Teaches technical skills in fruit handling, preservation techniques (like drying, canning, fermentation), and quality control. Prepares learners for processing units, quality assurance jobs, or home-based food businesses.
	IBOTMJTCO523	Plant Tissue Culture	Highly practical course that teaches lab skills, micro-propagation, and

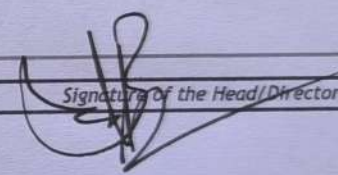
			aseptic techniques. These are in-demand in biotech labs, research institutions, and commercial nurseries.
	IXXXSEMCO323	Mushroom Cultivation	Focuses on practical cultivation techniques, hygiene, packaging, and post-harvest handling. It's a core skill course for employment in farms <b>or</b> starting one's own mushroom business.
	IXXXSEST0323	Seed Technology	Develops technical knowledge and practical skills in seed identification, testing, treatment, and storage. Useful in agriculture input companies, research, or seed enterprises.
	IBOTMJIN0523	Internship/Field Work/Practical	Gives experiential learning, fostering skills like data collection, reporting, field techniques, and industry engagement—all transferable and employment-ready.
	IXXXVAHW0023	Health and Wellness	Develops life skills in physical health management, stress relief, and wellness practices. Can lead to skill-based roles in fitness, nutrition assistance, <b>or</b> community health promotion.
	IXXXVADT0023	Digital and Technological Solutions	Teaches digital literacy, ICT tools, basic programming or app usage, which are essential 21st-century skills for any job or entrepreneurial venture.
	IBOTMJIN0523	Ethnobotany	Enhances research, documentation, and communication skills, especially around traditional knowledge systems—relevant for roles in NGOs, cultural conservation, or education.
<b>11A</b>	Does the programme have courses addressing Professional ethics/ gender/ human values/ environment/ sustainability & other value framework enshrined in NEP2020/etc. (Y/N)		Yes
<b>11B</b>	List of courses addressing <b>Professional Ethics:</b>		
	<b>Course Code</b>	<b>Course Title</b>	<b>Brief Justification</b>
	IXXXVAES0023	Environmental Science Education	This course likely includes topics on ethical responsibilities toward the environment, sustainable practices, and educating others responsibly—important in professions related to ecology, education, and sustainability.
	IXXXMDES0023	Environmental Issues and Sustainability	Addresses the ethical implications of environmental degradation, corporate social responsibility (CSR), and the role of professionals in promoting sustainability and climate justice.
	IBOTMJIN0523	Internship/Field Work/Practical	Internships often include training in professional behavior, workplace conduct, confidentiality, and ethical decision-making, especially during real-world application of skills.
	IBOTMJIN0523	Ethnobotany	Involves ethical engagement with indigenous knowledge, <b>respect for</b> intellectual property rights, and cultural sensitivity—all key aspects of ethics in research and community-based work.
	IXXXVAHW0023	Health and Wellness	May include components of ethical health communication, personal responsibility, and respect for individual well-being, particularly in roles like wellness coaching or public health.
<b>11C</b>	List of courses addressing <b>Gender Issues:</b> NA		
	<b>Course Code</b>	<b>Course Title</b>	<b>Brief Justification</b>

	IXXXVAES0023	Environmental Science Education	While primarily focused on environmental science, this course may discuss the role of gender in environmental management, especially considering how women in rural or marginalized communities interact with and are affected by environmental policies and practices. Gender-related issues in sustainable resource management <b>or</b> climate change impacts may also be explored.
	IXXXVAHW0023	Health and Wellness	Health and wellness courses often address gender-specific health issues (e.g., maternal health, sexual and reproductive health) and may focus on gender-sensitive approaches to health promotion, gender equality in healthcare, and the impact of gender on wellness outcomes.
<b>11D</b>	List of courses addressing <b>Human Value Issues:</b>		
	<b>Course Code</b>	<b>Course Title</b>	<b>Brief Justification</b>
	IXXXVAES0023	Environmental Science Education	This course promotes respect for nature, responsibility toward future generations, and environmental justice—key human values related to sustainability, ethical stewardship, and interconnectedness.
	IXXXVAHW0023	Health and Wellness	Directly engages with personal responsibility, compassion, empathy, and care for others. Promotes values like self-discipline, respect for one's body and mind, and community well-being.
	IXXXMDES0023	Environmental Issues and Sustainability	Encourages ethical living, social justice, respect for diversity, and global responsibility—all fundamental human values. It emphasizes the role of individuals and societies in caring for the planet and each other.
	IXXXAEKL0023	Kashmir Language	Language courses often promote respect for cultural identity, tolerance, and human dignity. Learning regional languages helps bridge cultural divides and strengthens social harmony.
	1XXXAEAL0023	Arabic Language	Similar to the Kashmir language course, learning Arabic fosters cross-cultural understanding, tolerance, and appreciation of diverse traditions and beliefs—core human values in a globalized world.
<b>11E</b>	List of courses addressing <b>Environment Issues:</b>		
	<b>Course Code</b>	<b>Course Title</b>	<b>Brief Justification</b>
	IXXXVAES0023	Environmental Science Education	This course directly focuses on environmental awareness, ecological literacy, and education for sustainable development. It likely covers climate change, biodiversity loss, pollution, and strategies for public engagement on environmental issues.
	IXXXMDES0023	Environmental Issues and Sustainability	The title explicitly focuses on environmental degradation, sustainability challenges, and solutions for sustainable living. Likely includes discussion on climate ethics, resource management, and policy frameworks for sustainability.
	IXXXSEPM0124	Propagation of Medicinal and Aromatic Plants	While focused on plant propagation, it promotes biodiversity conservation, sustainable agriculture, and eco-friendly farming—which are key to addressing environmental sustainability in the context of traditional medicine and rural development.

	IBOTMJTCO523	Plant Tissue Culture	Supports conservation of rare and endangered plant species through micropropagation. Plays a role in biodiversity preservation and genetic resource conservation.
	IBOTMJIN0523	Ethnobotany	Focuses on the relationship between indigenous cultures and plant use, emphasizing traditional ecological knowledge, conservation ethics, and sustainable resource use.
	IXXXSEST0323	Seed Technology	Relates to agricultural sustainability, including the development and use of climate-resilient seeds, conservation of plant genetic resources, and sustainable farming practices.
	IXXXSEMCO323	Mushroom Cultivation	Promotes sustainable and low-input agriculture, organic waste recycling, and eco-friendly income generation—addressing environmental concerns related to food systems and waste management.
<b>11F</b>	List of courses addressing <b>Sustainability issues:</b>		
	<b>Course Code</b>	<b>Course Title</b>	<b>Brief Justification</b>
	IXXXVAES0023	ENVIRONMENTAL SCIENCE EDUCATION	Focuses on ecological awareness, environmental responsibility, and educating others about sustainability. Prepares students to become advocates and educators in sustainable living.
	IXXXVAHW0023	HEALTH AND WELLNESS	
	IXXXSEPM0124	Propagation of Medicinal and Aromatic Plants	Promotes sustainable agricultural practices, conservation of medicinal biodiversity, and environmentally responsible farming techniques. Supports community-level green entrepreneurship.
	IXXXSEFP0224	Techniques of Fruit Processing & Preservation	
	IXXXMNAB0323	Bio-Industries	
	IXXXMDES0023	Environmental Issues and Sustainability	The most direct course on this theme. Covers sustainable development principles, climate action, natural resource management, and long-term environmental planning. Encourages systems thinking and ethical responsibility.
	IXXXSEST0323	Seed Technology	Involves the development of resilient seed varieties, sustainable crop improvement, and preservation of genetic resources—key to sustainable agriculture.
	IBOTMJTCO523	Plant Tissue Culture	Supports plant conservation, mass propagation of endangered species, and resource-efficient horticulture—all aligning with sustainability in biotechnology.
	IBOTMJIN0523	Ethnobotany	Highlights traditional sustainable practices, indigenous resource management, and the importance of cultural sustainability in ecological preservation.
<b>11G</b>	List of courses addressing <b>Other Value Framework enshrined in NEP2020/etc.:</b>		
	<b>Course Code</b>	<b>Course Title</b>	<b>Brief Justification</b>
<b>12A</b>	Does the Department/Directorate/Institute/ Centre offer Diploma Programme? (Y/N)		N
<b>12B</b>	Details of the <b>Diploma Programmes</b> offered by the institutions where the students of the institution have enrolled and successfully completed during the last five years (2019-		NONE



[illegible]

16A	Does the programme have Field Projects/ Research Projects /Internship in the programme? (Y/N)					Y
	Course Code	Name of the course pertaining to field projects/ Research Projects /Internship	Number of Credits	Number of students undertaking course	Departmental website link to the relevant document	
	IBOTMJIN0523	Internship/Field Work/Practical	02	30	<a href="https://nc.uok.edu.in/Main/List.aspx?Type=Download">https://nc.uok.edu.in/Main/List.aspx?Type=Download</a>	
16B	Details of components of <b>Field Projects / Research Projects / Internships</b> implemented during last five years (2019-2023)					
	Course Code	Name of the course pertaining to field projects/ Research Projects /Internship	Number of Credits	Number of students undertaking course	Departmental website link to the relevant document	
17	Any other Relevant Information:	None				
	<div style="text-align: right;">             Signature of the Head/Director of the Department/Centre/Institute         </div>					
<b>General Instructions:</b> <ol style="list-style-type: none"> <li>1. Kindly format the syllabus in light of the instruction and discussions held in past meetings and upload the syllabus on the Departmental Website.</li> <li>2. Upload valid proofs on the Departmental Website.</li> </ol>						