Programme Specific Outcomes (PSO) of various programmes of the University

B.Sc. (Agriculture)

1. Expertise in Agricultural Sciences: Graduates of the B.Sc. (Agriculture) program will demonstrate a comprehensive understanding of agricultural principles, practices, and technologies, allowing them to proficiently apply their knowledge in the cultivation, management, and sustainable utilization of crops and livestock.

2. Problem-solving and Innovation: Program graduates will be equipped with the skills to analyse agricultural challenges, develop innovative solutions, and implement effective strategies to enhance productivity, resource efficiency, and environmental sustainability in the field of agriculture.

B.Sc. (Horticulture)

1. Advanced Horticultural Knowledge and Skills:Graduates of the B.Sc in Horticulture program will demonstrate a comprehensive understanding of horticultural principles, practices, and techniques, enabling them to proficiently manage and optimize plant growth, crop production, and landscape design.

2. Sustainable and Innovative Practices:Program graduates will possess the ability to integrate sustainable and innovative approaches into horticultural activities, emphasizing resource conservation, environmental stewardship, and the application of cutting-edge technologies to enhance the productivity and resilience of horticultural systems.

M.Sc. (Agronomy)

1. Demonstrate advanced knowledge and proficiency in the principles and practices of agronomy, including crop production, soil management, and pest control, to effectively contribute to sustainable and efficient agricultural systems.

2. Apply critical thinking and research skills to address complex agronomic challenges, develop innovative solutions, and contribute to the enhancement of crop yield, quality, and overall agricultural productivity.

M. Sc (Ag.) in Agricultural Biotechnology

1. Advanced Biotechnological Skills: Graduates of M.Sc. in Agricultural Biotechnology will demonstrate proficiency in employing cutting-edge biotechnological techniques and methodologies specific to agriculture, including genetic engineering, molecular breeding, and bioinformatics, enabling them to contribute to the development of improved crop varieties and sustainable agricultural practices.

2. Integration of Biotechnology in Agribusiness: Program graduates will possess the ability to integrate biotechnological innovations into agribusiness strategies, showcasing a deep understanding of the economic, ethical, and regulatory aspects associated with the application of agricultural biotechnology. This capability enables them to contribute to the development of commercially viable and environmentally sustainable agricultural solutions.

M. Sc (Ag.) in Agricultural Economics

1. Economic Analysis and Decision-Making: Graduates of M.Sc. (Ag.) in Agricultural Economics will demonstrate proficiency in employing economic principles and analytical tools to assess agricultural systems, enabling them to make informed decisions related to resource allocation, production planning, and market strategies within the agricultural sector.

2. Policy Formulation and Evaluation: Program participants will acquire the capability to critically evaluate agricultural policies and contribute to the formulation of effective policies at regional, national, or international levels. They will demonstrate an understanding of the socio-economic implications of policy decisions on agriculture, rural development, and food security.

M. Sc (Ag.) in Agricultural Extension Education

1. Effective Extension Services Delivery: Graduates of M.Sc. (Ag.) in Agricultural Extension Education will demonstrate the ability to design, implement, and evaluate extension programs that effectively disseminate agricultural knowledge and technologies to farmers, thereby contributing to increased agricultural productivity and sustainable farming practices.

2. Community Empowerment and Engagement: Graduates will be proficient in fostering community participation and empowerment through the application of participatory approaches and social mobilization strategies, promoting a collaborative and inclusive environment for agricultural development.

M. Sc (Ag.) in Agricultural Statistics

1. Quantitative Analysis Proficiency: Graduates of M.Sc. (Ag.) in Agricultural Statistics will demonstrate advanced skills in utilizing statistical methods and tools to analyse agricultural data, enabling them to make informed decisions in various aspects of crop production, resource management, and agribusiness.

2. Statistical Modeling for Agricultural Systems: Graduates will be proficient in developing and applying statistical models to assess and optimize agricultural systems. They will have the ability to design experiments, interpret results, and provide valuable insights for improving the efficiency and sustainability of agricultural practices.

M. Sc (Ag.) in Entomology

1. Demonstrate advanced knowledge and expertise in the field of Entomology, including a deep understanding of insect biology, taxonomy, ecology, and integrated pest management strategies.

2. Apply advanced research and analytical skills to contribute to the development of sustainable solutions for pest control, insect-related diseases, and the overall management of insect populations in agricultural and ecological systems.

M. Sc (Ag.) in Genetics and Plant Breeding

1. Advanced Genetic Understanding: Graduates of M. Sc (Ag.) in Genetics and Plant Breeding will demonstrate a comprehensive knowledge of advanced genetic principles, molecular techniques, and biotechnological tools relevant to plant improvement, enabling them to analyse and manipulate plant genomes for enhanced agricultural productivity.

2. Expertise in Plant Breeding Strategies: Successful completion of the program will equip students with specialized skills in designing and implementing effective plant breeding strategies, incorporating classical and modern approaches. Graduates will be capable of developing new plant varieties with improved traits, addressing challenges such as pest resistance, abiotic stress tolerance, and enhanced nutritional content to contribute to sustainable and resilient agriculture.

M. Sc (Ag.) in Plant Pathology

1. Expertise in Disease Identification and Management:Graduates of the M.Sc. in Plant Pathology program will demonstrate a comprehensive understanding of various plant diseases, their causal agents, and the principles behind disease management strategies. They will be proficient in employing advanced diagnostic techniques and implementing effective disease control measures to safeguard agricultural crops.

2. Research Proficiency in Plant Pathology:Program graduates will possess advanced research skills in the field of plant pathology, enabling them to conduct independent and collaborative research projects. They will be adept at designing experiments, collecting and analyzing data, and contributing to the development of innovative solutions for the sustainable management of plant diseases in diverse agricultural settings.

M. Sc (Ag.) in Plant Physiology

1. Advanced Understanding of Plant Physiological Processes: Graduates of M. Sc (Ag.) in Plant Physiology will demonstrate a profound knowledge of the intricate physiological mechanisms governing plant growth, development, and responses to environmental stimuli.

2. Proficient Research and Analytical Skills: Students will acquire advanced research and analytical skills, enabling them to design and conduct experiments, analyse complex physiological data, and contribute to innovative solutions for improving crop productivity, stress tolerance, and overall plant health.

M. Sc (Ag.) in Seed Science and Technology

1. Proficiency in Seed Technology:Graduates of M. Sc (Ag.) in Seed Science and Technology will demonstrate advanced knowledge and skills in seed processing, testing, and enhancement techniques, enabling them to contribute effectively to the development and implementation of innovative seed technologies in the agricultural sector.

2. Research and Innovation in Seed Science:Graduates will be equipped to engage in research activities, demonstrate critical thinking, and apply scientific principles to address challenges in seed science. They will contribute to the advancement of seed-related research and development, fostering innovation and sustainability in agricultural practices.

M. Sc (Ag.) in Soil Science

1. Advanced Soil Analysis and Management: Graduates of M.Sc. (Ag.) in Soil Science will demonstrate proficiency in utilizing advanced techniques for soil analysis, interpretation of soil data, and implementing effective soil management strategies to optimize crop production while considering environmental sustainability.

2. Research and Innovation in Soil Sciences:Graduates will be equipped with the skills to engage in innovative research in soil sciences, contributing to the development of new technologies and methodologies that address contemporary challenges in agriculture and soil conservation. They will demonstrate the ability to critically evaluate existing practices and propose novel solutions for sustainable soil resource management.

M. Sc (Hort.) in Fruit Science

1. Expertise in Fruit Crop Management: Graduates of M.Sc. (Ag.) in Fruit Science will demonstrate advanced knowledge and skills in the scientific management of fruit crops, including proficiency in orchard establishment, crop physiology, pest and disease management, and sustainable cultivation practices.

2. Research and Innovation in Fruit Science:Graduates will be equipped to contribute to the advancement of Fruit Science through research and innovation, conducting experiments, analyzing data, and developing novel solutions to challenges in fruit crop production, with a focus on enhancing yield, quality, and environmental sustainability.

M. Sc (Hort.) in Vegetable Science

1. Advanced Knowledge of Vegetable Production:Graduates of M.Sc. (Ag.) in Vegetable Science will demonstrate a comprehensive understanding of advanced principles and practices in vegetable production, including expertise in crop management, pest and disease control, and the application of innovative technologies to optimize vegetable yields.

2. Research and Innovation in Vegetable Science: Graduates will be equipped with the skills to conduct research in vegetable science, contributing to the development of new varieties, cultivation techniques, and sustainable practices. They will be capable of applying critical thinking and scientific methodologies to address challenges in vegetable production, fostering innovation and advancements in the field.

M. Sc (Hort.) in Floriculture and Landscaping

1. Advanced Knowledge in Floriculture Techniques: Graduates of the M.Sc (Ag.) in Floriculture and Landscaping program will demonstrate a deep understanding of advanced techniques in floriculture, including plant breeding, propagation, and cultivation practices, enabling them to contribute to the development of sustainable and high-yielding flower crops.

2. Proficiency in Landscape Design and Management:Graduates will possess specialized skills in landscape design and management, encompassing the ability to create aesthetically pleasing and environmentally sustainable outdoor spaces. They will be equipped to design, implement, and maintain landscapes for various purposes, such as ornamental gardens, public parks, and urban green spaces.

M. Sc (Ag.) in Post-Harvest Management

1. Advanced Knowledge in Post-Harvest Technologies: Graduates of M. Sc (Ag.) in Post-Harvest Management will possess a deep understanding of innovative post-harvest technologies, including storage, packaging, transportation, and processing techniques, enabling them to optimize the quality and shelf life of agricultural products.

2. Effective Management of Post-Harvest Operations:Graduates will be equipped with the skills to manage post-harvest operations efficiently, covering aspects such as quality control, inventory management, and compliance with regulatory standards. They will be adept at implementing strategies to minimize post-harvest losses and enhance the overall value chain in agriculture.

Ph.D in Agronomy

1. Advanced Research Competence: Graduates will demonstrate a deep understanding of agronomic principles, research methodologies, and advanced analytical techniques, showcasing the ability to design, conduct, and critically evaluate original research in the field of agronomy.

2. Innovative Problem Solving and Application:Ph.D. holders in Agronomy will exhibit proficiency in translating research findings into practical solutions, contributing to the development of sustainable and innovative agricultural practices. They will demonstrate the capability to address complex agronomic challenges and enhance crop productivity, resource efficiency, and environmental sustainability.

Ph.D in Entomology

1. Advanced Research Proficiency:Graduates of the Ph.D. program in Entomology will demonstrate a high level of competence in designing and executing original research projects in entomological science, contributing novel insights to the field.

2. Effective Communication and Dissemination: Ph.D. holders in Entomology will be proficient in communicating complex entomological concepts to diverse audiences through scholarly publications, presentations, and effective engagement with both scientific and non-scientific communities.

Ph.D in Agricultural Economics

1. Advanced Research Skills: Graduates of the Ph.D. program in Agricultural Economics will demonstrate proficiency in designing and conducting original, rigorous research in the field of agricultural economics, employing advanced methodologies to address complex issues related to agricultural production, resource allocation, market dynamics, and policy analysis.

2. Contribution to Knowledge and Policy Impact: Ph.D. holders in Agricultural Economics will be capable of generating novel insights and contributing to the academic literature, as well as translating their research findings into practical policy recommendations. They will exhibit a deep understanding of the intersection between economic principles and agricultural systems, fostering positive changes in agricultural practices, resource management, and policy formulation.

Ph.D in Agricultural Extension Education

1. Research Competence: Graduates will demonstrate advanced research skills in agricultural extension education, including the ability to design and conduct original research, analyse data, and contribute new knowledge to the field.

2. Effective Teaching and Outreach: Graduates will possess the expertise to effectively communicate and disseminate research findings, innovative extension methods, and educational strategies to diverse stakeholders, fostering sustainable agricultural development and rural empowerment.

Ph.D in Genetics and Plant Breeding

1. Advanced Research Proficiency: Graduates will demonstrate an advanced understanding of genetic principles and plant breeding techniques, showcasing the ability to design, conduct, and critically analyse innovative research in the field of genetics and plant breeding.

2. Contribution to Scientific Knowledge and Agricultural Practices: Graduates will contribute significantly to the advancement of scientific knowledge in genetics and plant breeding, translating their research findings into practical applications that enhance crop yield, resilience, and overall agricultural sustainability.

Ph.D in Plant Pathology

1. Advanced Research Proficiency: Graduates of the Ph.D. program in Plant Pathology will demonstrate a high level of competence in designing and conducting original research in the field, showcasing the ability to develop innovative solutions to complex plant disease problems. This includes the application of cutting-edge technologies and methodologies to enhance understanding, diagnosis, and management of plant diseases.

2. Contribution to Scientific Knowledge: Ph.D. recipients in Plant Pathology will exhibit the capability to contribute significantly to the body of scientific knowledge through the publication of original research findings in reputable, peer-reviewed journals. Their research outcomes will demonstrate a deep understanding of plant-pathogen interactions, leading to advancements in disease resistance strategies, sustainable agriculture, and improved crop health.

Ph.D. in Soil Science

1. Advanced Research Proficiency: Graduates of the Ph.D. program in Soil Science will demonstrate advanced proficiency in designing, conducting, and disseminating original and innovative research in soil science, contributing to the development of new knowledge, methodologies, and technologies in the field.

2. Expertise in Specialized Areas: Graduates will exhibit specialized expertise in specific areas of soil science, such as soil fertility, soil physics, soil chemistry, or soil microbiology, showcasing the ability to address complex research questions and challenges within their chosen specialization.

Ph.D in Fruit Science

1. Advanced Research Competence: Graduates will demonstrate an advanced understanding of theoretical and applied concepts in fruit science, showcasing the ability to design and conduct innovative research projects that contribute to the advancement of knowledge in the field.

2. Publication and Dissemination Skills: Graduates will be proficient in communicating their research findings effectively, through high-quality publications and presentations at national and international forums, thereby contributing to the dissemination of knowledge and fostering collaboration within the fruit science community.

Ph.D in Vegetable Science

1. Advanced Research Proficiency: Graduates of the Ph.D. program in Vegetable Science will demonstrate an advanced ability to design, conduct, and analyse original research in the field of vegetable science, contributing to the development of innovative solutions and advancements in crop production, breeding, and sustainable agricultural practices.

2. Expertise in Specialized Knowledge Areas: Ph.D. holders in Vegetable Science will exhibit specialized expertise in specific areas such as plant physiology, genetics, crop management, and post-harvest technologies, enabling them to make significant contributions to the enhancement of vegetable crop quality, yield, and resilience in the face of environmental challenges.

Registrar

BAU, Sabour