Department of Agriculture

DEPARTMENT OF AGRICULTURE, IEHE

JOIN US AT IEHE, BHOPAL, TO EMBARK ON A JOURNEY TOWARDS A REWARDING CAREER IN AGRICULTURE AND MAKE A POSITIVE IMPACT ON THE WORLD'S FOOD SYSTEMS!

Kaliasot Dam, Kolar Road,
Bhopal- 16
E-mail: iehebhopal@mp.gov.in,
Website: www.iehe.ac.in

PROGRAM OUTLAY

The B.Sc. Agriculture program at IEHE, Bhopal, is designed to provide students with comprehensive knowledge and hands-on experience in various aspects of agriculture. The curriculum is structured to cover a wide range of topics including crop production, soil science, horticulture, plant pathology, genetics, agronomy, and agricultural economics. Our program emphasizes both theoretical learning and practical applications, preparing students for successful careers in agriculture and related fields.

Duration:

- 4 Years (8 Semesters)

LEARNING OBJECTIVES

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

Foundational Knowledge and Skills: To provide students with a comprehensive understanding of agricultural sciences, ensuring a solid foundation in both theoretical and practical aspects.

Skill Development: To develop technical, analytical, and managerial skills required for effective problem-solving and decision-making in agriculture and allied sectors.

Research and Innovation: To foster a spirit of research, innovation, and entrepreneurship in agriculture, encouraging students to contribute to advancements in agricultural practices and technologies.

Professional Competence: To prepare graduates to be professionally competent, ethically sound, and capable of adapting to the dynamic agricultural industry.

Sustainable Practices: To inculcate an understanding of sustainable agricultural practices and the importance of environmental stewardship.

Lifelong Learning: To encourage lifelong learning and continuous professional development, enabling graduates to stay updated with the latest developments in agriculture.

PROGRAM OUTCOMES (POS)

Knowledge Application: Apply the knowledge of basic and applied sciences to solve complex agricultural problems.

Technical Proficiency: Demonstrate technical proficiency in agricultural practices, including crop production, soil management, pest management, and agricultural engineering.

Problem-Solving: Identify, analyze, and solve problems related to agriculture using critical thinking and evidence-based approaches.

Research Skills: Conduct research and interpret data to make informed decisions in agricultural practices and policy-making.

Communication: Communicate effectively with stakeholders, including farmers, researchers, policymakers, and the general public.

Teamwork and Leadership: Work effectively as a member or leader of a diverse team in multidisciplinary settings.

Ethics and Professionalism: Exhibit professional and ethical behavior in all agricultural practices and decisions.

Sustainability and Environmental Awareness: Understand and apply principles of sustainability and environmental stewardship in agricultural practices.

Modern Tool Usage: Utilize modern tools and techniques, including information technology, in agricultural practice and research.

Societal Impact: Assess the societal, health, safety, legal, and cultural issues related to agricultural practices and understand their impact on society.

Lifelong Learning: Recognize the need for, and engage in, lifelong learning to stay abreast of developments in the field of agriculture.

Entrepreneurship: Develop entrepreneurial skills to create and manage agricultural enterprises.

PROGRAM CONTENT

SEMESTER I

Fundamentals of Horticulture
Fundamentals of Plant Biochemistry and Biotechnology
Fundamentals of Soil Science
Introduction to Forestry
Comprehension and Communication Skill in English
Fundamentals of Agronomy
Introductory Biology (For 12th in Mathematics)
Elementary Mathematics*(For 12th in Biology)
Agriculture Heritage
Rural Sociology & Educational Psychology
Human Values & Ethics
NSS/NCC/Physical Education & Yoga Practices**

SEMESTER II

Fundamentals of Genetics
Agricultural Microbiology
Soil and Water Conservation Engineering
Fundamentals of Crop Physiology
Fundamentals of Agricultural Economics
Fundamentals of Plant Pathology
Fundamentals of Entomology
Fundamentals of Agricultural Extension Education
Communication Skills and Personality Development

SEMESTER III

Crop Production Technology — I (Kharif Crops)
Fundamentals of Plant Breeding
Agricultural Finance and Cooperation 3
Agri- Informatics
Farm Machinery and Power 2
Production Technology for Vegetables and Spices
Environmental Studies and Disaster Management
Statistical Methods
Livestock and Poultry Management

SEMESTER IV

Crop Production Technology —Il (Rabi Crops)
Production Technology for Ornamental Crops, MAP and Landscaping
Renewable Energy and Green Technology
Problematic Soils and their Management
Production Technology for Fruit and Plantation
Principles of Seed Technology
Farming System & Sustainable Agriculture
Agricultural Marketing Trade & Prices
Introductory Agro-meteorology & Climate Change
Elective Course

SEMESTER V

Principles of Integrated Pest and Disease Management
Manures, Fertilizers and Soil Fertility Management
Pests of Crops and Stored Grain and their Management
Diseases of Field and Horticultural Crops and their Management -I
Crop Improvement-I (Kharif Crops)
Entrepreneurship Development and Business Communication
Geo informatics and Nano-technology and Precision Farming
Practical Crop Production — I (Kharif crops)
Intellectual Property Rights
Elective Course

SEMESTER VI

Rainfed Agriculture & Watershed Management
Protected Cultivation and Secondary Agriculture
Diseases of Field and Horticultural Crops and their Management-Il
Post-harvest Management and Value Addition of Fruits and Vegetables
Management of Beneficial Insects
Crop Improvement-Il (Rabi crops)
Practical Crop Production —Il (Rabi crops)
Principles of Organic Farming
Farm Management, Production & Resource Economics
Principles of Food Science and Nutrition
Elective Course

SEMESTER VII

Student READY Prog.

SEMESTER VIII

Student READY Prog.

ELECTIVE COURSES

Agribusiness Management
Agrochemicals
Commercial Plant Breeding
Landscaping
Food Safety and Standards
Biopesticides & Biofertilizers •
Protected Cultivation
Micro propagation Technologies
Hi-tech. Horticulture
Weed Management
System Simulation and Agro-advisory
Agricultural Journalism

CAREER OPPORTUNITIES:

Graduates of the B.Sc. Agriculture program can pursue careers in various sectors:

Agribusiness and Agri-Entrepreneurship

Research and Development

Agricultural Extension Services

Government Departments (Agriculture, Horticulture, Forestry, etc.)

NGOs working in Rural Development

Agricultural Input Companies (Fertilizers, Pesticides, Seeds)

Farming and Farm Management

WHY CHOOSE IEHE, BHOPAL?

Experienced Faculty

Our faculty members are experts in their fields with extensive teaching and research experience.

Modern Infrastructure

State-of-the-art laboratories, research facilities, and well-equipped classrooms.

Industry Linkages

Strong connections with agricultural industries and research organizations for internships and placements.

Holistic Development

Focus on the overall development of students through co-curricular and extra-curricular activities.

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