



4-Year B.Sc Agriculture

# **SCHOOL OF BASIC & APPLIED SCIENCES**



## INTRODUCTION

The B. Sc in Agriculture program is a 4-Years undergraduate course consisting of topics such as agricultural science, use of modern scientific equipment and techniques in agriculture, land surveying, soil science, water resource management, animal and poultry management, basics of biotechnology, agronomy, nutrition, farm operational management, agricultural marketing or journalism, genetics and animal breeding, production operations management, health, welfare and disease advisors, animal science and technology, research, advisory and consultancy both for the government and the private sector.

The main aim of this program is to use the above mentioned concepts to train students improve agriculture productivity, manage products and pave way for future developments through research activities.

B. Sc in Agriculture course equips students with all-round knowledge of the agricultural sector and includes the following:

- **Agronomy:** Basics of Agronomy, Kharif and Rabi Crop, Crop Protection, Weed Management, Irrigation Techniques, Water Resource Management, Organic Farming, Sustainable Agriculture.
- **Plant Genetics:** Botany, Basics of Genetics, Plant Breeding, Seed Technology, Basics of Biotechnology.
- **Soil Science:** Introduction to Soil Science, Soil Fertility, Soil Chemistry, Fertilizers, Agricultural Chemistry.
- **Entomology:** Pest Management, Beneficial Insects, Grain Storage and Management.
- **Agricultural Economics:** Market prices, Trade prices, Marketing, Finance, Agribusiness Management, Farm Management.
- **Agriculture Engineering:** Agriculture Machinery, Power and Tools, Harvest Technology, Environment Science and Engineering, Renewable Energy.
- **Agricultural Meteorology:** Climate patterns, Climatic hazards on Agriculture, Climatic Zones, Weather forecasting.
- **Plant Pathology:** Crop Diseases, Nematology.
- **Horticulture:** Fruit Crops, Medicinal Plants, Aromatic Plants, Flower Production, Spices, Plantation Crops.
- **Agricultural Extension:** Dimensions of Agricultural Extension, Extension Methodologies, Entrepreneurship Development program.

## PROGRAM OBJECTIVE

The objective of our B.Sc program in Agriculture is to educate future agricultural engineers, who has general knowledge and skills in agricultural production, process and farming based on agricultural, natural, technical and economical sciences in diverse areas of modern agriculture. It includes courses in production and protection of field and horticultural crops, biotechnology and farm Engineering together with relevant laboratory programs, and a research project leading to a dissertation. The students are specifically groomed for R&D, agri-business and industry. A multidisciplinary approach is the essence of the course which is achieved by offering open electives and interdisciplinary research and teaching base in agricultural, biotechnological sciences and engineering emphasis



### Some of the major highlights of B. Sc Agriculture program at Chitkara University

- Course structure as per ICAR (Indian Council of Agricultural Research) approved syllabus.
- UGC recognized / Allied with Govt. University. Graduated students are eligible for employment anywhere in the country and abroad.
- Agricultural Farm attached with the college campus.
- Fine tuned with the industrial and Govt. jobs requirements.
- Highly experienced well qualified (Doctorates) from institutes of repute, engaged in consultancy, research and publication to add immense value to academic life.
- Live Projects and demonstrations in the areas of crop production, nursery raising, organic farming, floriculture, vegetable crop production, medicinal plants, orchard management, ornamental horticulture etc.
- Forest inventory & socio-economic surveys, wild life habitat studies, attachment with state forest department and forest based industries etc for making the students versatile for industry.
- Experiential Learning Activities: Students are exposed to Commercial farms to know-how that create an opportunity for students to engage and tone up their endurance, confidence and management skills.
- Innovative Pedagogy : Emphasis on case studies and inter-personal based teaching to develop skills in analytical thinking and reflective judgment by reading and discussing complex, real-life scenarios.
- Well equipped Labs with necessary field equipments and research facilities for demonstration and independent project work.

#### Rural Agricultural Work Experience (RAWEX)

students are exposed to real life rural settings. Its aim is to develop a sense of awareness among the students about the problems of farmers and rural people to inculcate professional attitude in facing real-life problems. Major components are industrial attachment, field visits, village attachment and plant clinic. In the industrial attachment, students get attached to an industry and gain work experience over there. In village attachment, students get attached to a village where they work under the guidance of farmers. They also help farmers in various operations. Field visits are organized to progressive farms, KrishiVigyanKendras, Horticulture Centres and IPM Laboratory, etc. In the plant clinic, students undergo rigorous training. They diagnose the various problems of soils and plants related to production and give solutions or suggestions to farmers.

#### Practical Crop Production (PCP)

Practical Crop Production is an integral part of the course curriculum for B.Sc Agriculture degree. In this one hectare of land is provided to a group of eight students. They have to cultivate it themselves. They not only earn during PCP by selling their produce but also bear the risks associated with crop production.

# B.Sc AGRICULTURE CAREER PROSPECTS

Agricultural sector in India employs the largest workforce. However the sector is still underdeveloped. The sector is in need of a professional workforce. Therefore the scope of growth and jobs is immense.

B.Sc. Agriculture is considered a professional degree. The graduates from this degree can find jobs in both public and private sectors. The importance of agriculture is growing rapidly and thereby is increasing the job prospects in the field of agriculture. Today Graduates with B.Sc. Agriculture are readily accepted in the government projects. Agricultural departments, Extension services, Research organizations, Commercial farming etc. are some of the sectors where graduates of this field can find job opportunities in.

## Following are some government sectors which have job opportunities for B. Sc. Agriculture graduates:

- Indian Agricultural Research Institute
- State Farms Corporation of India
- National Dairy Development Board
- Agricultural finance corporations
- North Eastern Region Agricultural Marketing Corporation
- National Seeds Corporation Limited
- Food Corporation of India
- NABARD and other banks
- Indian Council of Agricultural Research
- Council of Scientific and Industrial Research

## Following are the private sectors which offer jobs to agriculture graduates:

- Agro industries
- Financial sector with focus on agriculture
- Fertilizer companies
- Agriculture Marketing
- Micro-finance institutions
- Agri-biotech organizations

## Some job profiles that are offered to B.Sc. Agriculture graduates:

- Agriculture officer
- Agricultural Research Scientist
- Agriculture Technician
- Business Development Executive
- Rice Breeder
- Junior Agriculture Specialist
- Assistant Plantation Manager
- Agriculture Development Officers
- Agriculturists
- Marketing Executive
- Seed Technologist
- Junior Associate – Research

## Major companies in India recruiting B.Sc Agriculture graduates

- State Bank of India
- Oriental Bank of Commerce
- Indian Overseas Bank
- Crystal Phosphates Ltd.
- DuPont India Ltd.
- Simitono
- Thomson Reuters Group
- IFFCO Kisan Sanchar Ltd.
- Simbhaoli Sugar Ltd.
- Savannah Sesds Pvt. Ltd.
- Dhanuka Agritech Ltd.
- Union Bank of India
- Syndicate Bank
- Triveni Engg. & Industries
- Mahyco Seeds Ltd.
- Bayer Crop Science
- UPDASP
- ISS Hicare
- DSCL Sugar Group
- NDDB Dairy Services
- TECHNICO Agrisciences Ltd.