



ICAR
Approved Syllabus



School of Agriculture

BHARTIYA MAHAVIDYALAYA ROORKEE
(SPA - BM Roorkee)

PROSPECTUS

B.SC (HONS) AGRICULTURE

AFFILIATED TO UGC APPROVED | STATE GOVERNMENT UNIVERSITY

SRI DEV SUMAN UTTARAKHAND UNIVERSITY, TEHRI GARHWAL



CAMPUS: Saini Institutional Area | Vill: Berpur | Piran Kaliyar | Roorkee | Haridwar | Uttarakhand | India

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Bhartiya Mahavidyalaya Roorkee

Empowering Future Leaders in Agriculture

About Us:

Bhartiya Mahavidyalaya Roorkee is a renowned institution dedicated to excellence in agricultural education, research, and outreach. With a rich legacy of nurturing talent and fostering innovation, we are committed to shaping the next generation of agricultural leaders.

Key Features:

- 1. State-of-the-Art Infrastructure:** Our campus is equipped with modern laboratories, research facilities, and farm land, providing students with a conducive environment for learning and experimentation.
- 2. Expert Faculty:** Our faculty comprises experienced professionals and experts in various fields of agriculture, who are dedicated to providing quality education and mentorship to students.
- 3. Industry Collaborations:** We have strong collaborations with leading agricultural organizations, research institutions, and industry partners, offering students opportunities for internships, projects, and placements.
- 4. Hands-on Learning:** Practical training and field visits are integral components of our curriculum, allowing students to gain valuable hands-on experience and develop practical skills relevant to the agricultural industry.
- 5. Research Opportunities:** We encourage and support research initiatives among students and faculty members, fostering innovation and contributing to advancements in agricultural science and technology.
- 6. Global Exposure:** Our international exchange programs, study tours, and collaborations with foreign universities provide students with exposure to global agricultural practices and perspectives.

Bachelor of Science (B.Sc) Honours in Agriculture

A Bachelor of Science (B.Sc) Honours in Agriculture is an undergraduate degree program that focuses on various aspects of agriculture, including crop production, soil science, plant genetics, animal husbandry, agricultural economics, and agricultural engineering. The "Honours" designation typically signifies a higher level of specialization and academic rigor compared to a standard Bachelor of Science in Agriculture program.

Here's an overview of what B.Sc Honours in Agriculture entails:

- 1. Duration:** The duration of the program is (4) four years or (8) Eight semester.

- 2. Curriculum:** The curriculum covers a wide range of subjects related to agriculture, providing students with a comprehensive understanding of agricultural principles, practices, and technologies. Courses may include agronomy, horticulture, soil science, plant breeding, animal science, agricultural economics, agricultural engineering, and environmental science.
- 3. Specializations:** Many B.Sc Honours in Agriculture programs offer specializations or elective courses that allow students to focus on specific areas of interest such as crop science, livestock management, agricultural biotechnology, agribusiness management, or sustainable agriculture.
- 4. Practical Training:** Practical training and fieldwork are integral components of the program, providing students with hands-on experience in agricultural practices, technology usage, and management techniques. This may include laboratory work, field visits, internships, and research projects.
- 5. Research Opportunities:** B.Sc Honours in Agriculture programs often include opportunities for students to engage in research projects under the supervision of faculty members or industry experts. These research experiences enable students to develop critical thinking, problem-solving, and analytical skills while contributing to advancements in agricultural science and technology.
- 6. Career Opportunities:** Graduates of B.Sc Honours in Agriculture programs have diverse career opportunities in various sectors including agriculture, agribusiness, food processing industries, research organizations, government agencies, NGOs, banking, and educational institutions. They can work as agricultural officers, farm managers, agricultural consultants, research associates, agricultural scientists, extension officers, among other roles.

The curriculum of a B.Sc (Hons) in Agriculture program

The curriculum of a B.Sc (Hons) in Agriculture program typically includes a combination of theoretical courses, practical training, and research projects aimed at providing students with a comprehensive understanding of agricultural sciences and preparing them for careers in the agriculture sector. While specific courses may vary depending on the university and specialization, here is a general overview of the curriculum:

Foundation Courses:

1. Introduction to Agriculture
2. Principles of Crop Production
3. Soil Science and Soil Management
4. Plant Physiology and Biochemistry
5. Genetics and Plant Breeding
6. Principles of Horticulture
7. Principles of Animal Husbandry
8. Agricultural Microbiology
9. Agricultural Economics and Farm Management
10. Agricultural Extension and Rural Development

Core Courses:

1. Agronomy
2. Crop Protection (Pests and Diseases)
3. Irrigation and Drainage
4. Agricultural Engineering
5. Post-Harvest Technology
6. Farm Machinery and Equipment



7. Agricultural Marketing and Agribusiness
8. Livestock Production and Management
9. Agricultural Biotechnology
10. Environmental Science and Sustainable Agriculture

Elective Courses (Specializations may include):

1. Crop Physiology
2. Seed Technology
3. Organic Farming
4. Precision Agriculture
5. Greenhouse Technology
6. Animal Nutrition
7. Poultry Production
8. Dairy Science
9. Aquaculture
10. Agroforestry

Practical Training and Fieldwork:

1. Laboratory Practicals in Soil Science, Plant Science, and Animal Science
2. Field Visits to Farms, Research Institutes, and Agricultural Industries
3. Hands-on Training in Crop Production Techniques, Soil Sampling, Pest and Disease Identification, and Livestock Management
4. Summer Internships in Agricultural Organizations, Agribusiness Firms, or Research Institutes

Research Project:

Students are typically required to undertake a research project or thesis in their final year, where they apply their knowledge and skills to conduct original research in a specific area of agriculture under the guidance of faculty members.

Seminar Presentations and Workshops:

Students may also participate in seminar presentations, workshops, and guest lectures conducted by experts in the field to enhance their understanding of emerging trends and technologies in agriculture.

Overall, the curriculum of a B.Sc (Hons) in Agriculture program is designed to provide students with a strong foundation in agricultural sciences, practical skills in agricultural practices and technologies, and opportunities for research and innovation to address global challenges in agriculture.



After graduating with a B.Sc (Hons) in Agriculture, students have a wide range of career opportunities available to them. Here are some options:

Agricultural Officer: Graduates can work as agricultural officers in government agricultural departments or agencies, where they are responsible for implementing agricultural policies, providing technical assistance to farmers, and promoting agricultural development.

Agronomist: Agronomists specialize in crop production and management, advising farmers on crop selection, planting techniques, fertilization, pest and disease management, and soil conservation practices.

Soil Scientist: Soil scientists study the composition, structure, and fertility of soils, conducting research to improve soil management practices and optimize crop yields. They may work in agricultural research institutes, universities, or government agencies.

Agricultural Extension Officer: Extension officers work with farmers and rural communities to disseminate agricultural knowledge and technologies, organize training programs and workshops, and facilitate the adoption of new agricultural practices.

Farm Manager: Farm managers oversee the day-to-day operations of agricultural enterprises, including crop production, livestock management, machinery maintenance, and marketing. They may work on commercial farms, agribusinesses, or estates.

Agricultural Consultant: Agricultural consultants provide expert advice and consultancy services to farmers, agribusinesses, and government agencies on various aspects of agriculture, including farm management, marketing, and sustainable practices.

Research Associate: Graduates can work as research associates or assistants in agricultural research institutes, universities, or private companies, assisting with research projects aimed at developing new crop varieties, improving agricultural practices, or addressing specific agricultural challenges.

Agribusiness Manager: Agribusiness managers work in companies involved in the production, processing, distribution, and marketing of agricultural products and services. They may hold roles in marketing, sales, supply chain management, or business development.

Entrepreneur: Graduates with an entrepreneurial spirit can start their own agricultural ventures, such as farms, nurseries, agribusiness startups, or agricultural consultancy firms, leveraging their knowledge and skills to innovate and create value in the agricultural sector.

Further Education: Some graduates may choose to pursue further education by enrolling in postgraduate programs such as M.Sc (Master of Science) in Agriculture, MBA (Master of Business Administration) in Agribusiness, or Ph.D. (Doctor of Philosophy) in Agricultural Sciences, to specialize further or pursue academic and research careers.

These are just a few examples of the career paths available to graduates with a B.Sc (Hons) in Agriculture. The agriculture sector offers diverse opportunities for individuals passionate about contributing to food security, environmental sustainability, and rural development.



Eligibility: 12th / Intermediate (Agriculture or Science)

Duration: 04 Year / 08 semester

How to apply

Students who wish to apply for B.Sc.(H) Agri course, has to submit an admission request application in the name of Program Director School of Agriculture, Bhartiya Mahavidyalaya, Roorkee.

Step.1. Open the link <https://sriramedutrust.in/adm-reg>

Step 2. Fill the application form and attach all required documents.

Step 3. Upload the application & submit the final form.

Tuition Fee: INR 40,000 pa (Indian Students)

USD 2500 pa (International Students)

Fee Payment mode:

* **Demand Draft** in Favour of "**Bhartiya Mahavidyalaya Roorkee**"

Online Payment:

Bank: NEFT / RTGS

UPI →

Bhartiya Mahavidyalaya Roorkee

Indian Bank A/C No: **50329836610**

IFSC Code: **IDIB000B782**



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