

# **S.D.M. Government Post Graduate College Doiwala (Dehradun)**

## **Department of Botany**

### **Brief Introduction about the Department/ Subject/ Prospects**

- Botany deals with the study of plants including their structure, properties, and biochemical processes. Plants are of paramount importance to humans, who depended upon them as sources of food, shelter, clothing, medicine, ornament, tools, and magic. The principles and findings of botany have provided the base for various applied sciences as agriculture, horticulture and forestry.
- The inception of the Botany department as under graduate department came into existence in the year 2010. Since then, the department is committed to provide students a basic foundation in the biological and related sciences through introductory basic and specialized courses.
- The BSc Botany course aims to give knowledge on different plant groups ranging from algae to angiosperms, their classification and life cycle. In addition to topics like plant physiology, genetics, and environmental botany, the student also learns anatomy and embryology of flowering plants. The study of morphological features of different parts of plants, the terminologies used to describe them, and associated literature aids to understand the specific characters of plants which in turn guides the learner in classifying and identifying the plants in the field. The course also equips the student with the skills and techniques used in biotechnology, bioinformatics, medicinal botany, biostatistics, and herbarium specimen preparation.
- As a part of the curriculum, the Department also organizes various botanical field excursion trips and educational tours for students to get familiarized with the basic concepts and techniques of plant collection and allow students to interact with what they are learning.
- Initially UG courses were affiliated with HNB Garhwal University (central university) and now the courses are affiliated with SDSUV, Badshahithaul, Tehri Garhwal.
- Presently in all the classes of B.Sc. Annual system (SDSUV) is being followed and from the session 2022-23 NEP is followed.
- The department has UG classroom and well equipped laboratory.
- At present, 01 Associate Professor Dr. Anil Kumar and 01 Assistant Professor Dr. Pratibha Baluni (on Attachment) with 02 supporting staffs are working in the department.
- The faculty members of the department have attended training programs, published many research papers, books and chapters in books and actively participate in administrative works.
- Faculty members continuously participate in different seminars, conferences, webinars and workshops.
- Department is regularly organizing various scientific activities like invited lectures, seminars, workshops, debates, quizzes, environmental awareness programs etc.

- Alumni of the department are well placed placed at various respectable positions in different service sectors like Banking, Defence, and Teaching etc.

### **Infrastructural facilities**

- At present department has one botanical garden.
- The major equipments available in the department for research activities are Electrophoresis kit, Digital Balance, Microprocessor Colony Counter, Hot Plate, Digital pH Meter, Microtome, Soil Thermometer, Rain Gauge, Autoclave, Laminar Air Flow Chamber, Centrifuge, BOD Incubator, LCDs, Oven, Xerox Machine, Research Microscopes, Student Microscopes, Plant Press and Vasculum etc.

### **Vision**

- To empower students with innovative life skills and social value for global competency.
- The department is committed to function as the Centre of Excellence in higher education and application-oriented basic research in the field of plant science.
- To perceive and disseminate the importance of plants in sustaining the earth and to understand the diversity, development, and functioning in order to conserve and coexist with nature.
- To bestow the students with a basic applied understanding of the subject through innovative teaching and research, and to outreach on the arrays and processes of life

### **Future Perspectives**

- To strengthen quality education and research, through advanced infrastructural and technological facilities
- To provide an academic environment for the benefit of students and faculty to elucidate ways for sustainable development under changing climatic conditions To expand academic co-operative by offering new courses and upgrading programs to a wider spectrum of students and researchers.
- Extension of herbarium with the help of students to generate keen interest amongst them to take up taxonomy for their higher studies.
- Development of Botanical garden to increase the green cover area of the college campus.
- To promote and foster collaborative research for enhanced critical thinking and developing new ideas
- To start diploma course in Mushroom cultivation.

### **B.Sc. BOTANY: Program Outcomes (POs)**

#### **Upon completion of the graduate program the students will be able to:**

**PO-1:** acquire the practical application of basic and conceptualized knowledge of plant sciences.

**PO-2:** develop the ability to perform efficiently the various laboratory and field techniques they can apply for scientific reasoning and problem-solving.

**PO-3:** develop better communication skills by means of seminar presentations that will help to develop confidence for self-education and ability to engage in life-long learning.

**PO-4:** pursue various academic and professional courses and will be ready for entry-level jobs in any area of biology.

**PO-5:** facilitate students to take-up successful career in Botany, actively participate and succeed in various competitive examinations.

- **Faculty Name and Designation**

<b>Name of Faculty</b>	<b>Designation</b>
Dr. Anil Kumar	Associate Professor
Dr. Pratibha Baluni	Assistant Professor

- **Students Enrolled in UG, PG Semester/ Year**

<b>Class</b>	<b>Seats Sanctioned</b>	<b>Student Enrolled</b>	<b>Total Students</b>
B.Sc. I	60	50	145
B.Sc. II	60	45	
B.Sc. III	60	50	

- **Toppers of last three years in UG and PG**

<b>Batch</b>	<b>Name of Toppers</b>	<b>Percentage</b>
2016-19	Pragati /Shilpa	A+ credits 36)
2017-20	Nidhi Solanki	A
2018-21	Nikita Aswal	91.25

- **Seminar/ Workshops /Lectures:** Organized : Nil; Attended: 16
- **Any other achievement**
  - **Publications: 24** ( In Journals of National and International Repute)
  - **Books Published: 03** (With ISBN)
  - **Edited Book Chapters: 03**

### **UG Syllabus link**

- [https://www.sdsuv.ac.in/Doc/BSc\\_Botany\\_Annaul%20SDS-converted20.pdf](https://www.sdsuv.ac.in/Doc/BSc_Botany_Annaul%20SDS-converted20.pdf)
- <https://www.sdsuv.ac.in/Doc/Syllabus-of-B.Sc.Botany.pdf>
- [https://he.uk.gov.in/files/BOTANY\\_SYLLABUS-\\_NEP\\_2020.pdf](https://he.uk.gov.in/files/BOTANY_SYLLABUS-_NEP_2020.pdf)