

Departmental Profile: Botany

About the Department:

Department of Botany was established in 1962. The post graduate Department was established in 2003. The Botany Department was received a status of recognized research center in affiliation with RTM Nagpur University in 2012. Prof. Damle was the founder Principal and the founder Head of Botany Department. Since its inception, the Department was recognized for teaching and research in the various areas of Botany. A well balanced curriculum having theory and practical and qualified faculty has been the hall mark of this Department since its inception. In keeping pace with the advances in various aspects of plant science, the Department introduced add-on course in herbs and herbal drugs. The Department offers an undergraduate program and postgraduate program which is in affiliation with Rashtrasant Tukadoji Maharaj Nagpur University. The Department has undertaken research projects in the areas of plant physiology, applied mycology and plant pathology, physiology, medicinal plant biology, paleobotany, ethnobotany and taxonomy for which it has received funding from various National agencies. Faculty members have active collaborations with scientists from Institutes in or outside India. The overall goal of Botany Department has been to impart quality education at junior, senior, post-graduate level along with continuous efforts on basic and applied aspects of plant science research at doctoral and postdoctoral level.

Highlights of the Department:

- Faculty members of Botany Department are recipients of various awards, research projects and fellowships. They are reviewers of various research journals as well as resource persons for workshops and training programs.
- Department has well-equipped research lab, for accommodating 10 Ph.D. students. Apart from active research work, the Department has functional laboratories for UG and PG teaching purpose.
- Botany Department has well furnished museum for permanent specimens and two botanical gardens. Faculties are specialized in different sub-domains of plant science subjects with two of them are recognized as Ph.D. Supervisor at RTM Nagpur University.
- Department run certificate course in herbs and herbal drugs and statistical analysis using R.

Sophisticated Major Instruments:

- Trinocular microscope
- Single beam spectrophotometer
- Table top refrigerated high speed centrifuge
- Analytical weighing balance
- Tilak air sampler
- Water analysis kit
- Vertical and horizontal laminar air flow
- Incubating shaker

Teaching Staffs:

Name	Qualification	Designation	Specialization	Area of Research
*Dr. L.P. Dalal	M.Sc., M.Phil., B.Ed, Ph.D	Associate Professor	Reproductive Biology of Angiosperm,	Mycology, Algal taxonomy
*Dr. P.F. Dhabarde	M.Sc., Ph.D	Assistant Professor & Head	Paleobotany	Paleobotany
Dr. D. D. Naik	M.Sc., Ph.D	Assistant Professor	Plant Biotechnology	Plant biotechnology, Climate change Ecology
Mrs. Swati Kalode	M.Sc.	Lecturer (on contract basis)	Mycology	Mycology and taxonomy
Mrs. Arti Pranjale-Ghuse	M.Sc.	Lecturer (on contract basis)	Reproductive Biology of Angiosperm	Ethnobotany, Ecology

*Recognized PhD Guide of RTM Nagpur University

Co-curricular programs of the department:

- **Botany Counseling Center:**

Under this center, students get the information regarding the recent developments in the world of Botany. Students get the information of the career opportunities and various job positions in Botany through this cell.

Faculty Incharge: Dr. D. D. Naik

- **Plant herbarium and botanical garden development Center:**

Under this unit, students are encouraged and actively participated in study tours, botanical collections for the curriculum. Students are facilitated all the requirements for the preparation of herbarium, preserved museum items. This center organizes some skill oriented workshops viz.. herbs and herbal drugs for BSc and MSc students.
Faculty Incharge: Dr. P.F. Dhabarde

- **Center for Botany Entrance Exam for Higher Studies:**

The department conducts informal discussions with final year BSc students for preparation of various entrance examinations.
Faculty Incharge: Dr. L.P. Dalal

Highlights of the syllabus under Autonomy:

The course design ensures that the graduating students with Botany as one of the subject will have the academic standard pre-requisites to take post-graduation programme in Botany as well as in many allied fields in India and abroad. The multidisciplinary skills they will be acquired will be of tremendous value to them especially if they choose to enter such cutting edge research areas; be it in Academia or in Industry. We believe that the graduates with Botany will be a complete package to face any national competitive exams held for the graduates.

Syllabus contains the core branches including viruses, algae, fungi and bryophytes, Pteridophytes, gymnosperms and angiosperms, Cell Biology, Genetics and plant breeding, Plant Physiology, Plant biotechnology and plant ecology. Along with the theory, skill oriented experiments including some innovative projects will prepare the students to orient themselves to bridge the gap between science and technology.

Aims of the syllabus:

- (1) To learn the principles, procedures, concepts and historical aspects of botanical fields.
- (2) To develop knowledge and understanding of the life structures, processes and functions of plants.
- (3) To explore the diversity of plants, their inter-relationship & impact on environment.
- (4) To know the technological applications of plant sciences and to introduce them in other technological contexts & investigations.
- (5) To develop attitude in students for scientific enquiry, curiosity, self-discovery and evaluation through, individual study, personal initiatives and group work related to plants.

- (6) To provide the knowledge, skills and understanding among students in order to pursue further education, training and employment in Botany related fields.
- (7) To create interest and excitement among students for appreciation of the nature and World of Plants.