

RAYAT SHIKSHAN SANSTHA'S  
**SHREE SADGURU GANGAGEER MAHARAJ SCINCE, GAUTAM ARTS & SANJIVANI  
 COMMERCE COLLEGE, KOPARGAON DIST AHMEDNAGAR**

**Program Outcomes, Program Specific Outcomes and Course Outcome**

**Department of Botany**

<b>Program outcome: Ph.D. (Botany)</b>	
<b>Ph.D. (Botany)</b>	<p>1 Ph.D. in Botany is 3-year doctorate degree in Botany. Botany is a branch of biological science that focuses on the study of plants and how they survive and interact with other living and nonliving components of the environment. At undergraduate and graduate levels, the curriculum of the course typically consists of lecture-based lessons, lab sessions, and field research. Doctoral programs however, focus more on research.</p> <p><b>2. Ideal candidates for the course would possess:</b></p> <ul style="list-style-type: none"> <li>• Data-handling skills such as recording, collating, and analyzing data using appropriate techniques and equipment.</li> <li>• Written communication skills</li> <li>• Presentation and oral communication skills such as to present research findings and make presentations in a clear, succinct way.</li> <li>• Project management skills, such as organizing and undertaking research projects, experiments, etc. (including budgeting, contingency planning, and time management).</li> <li>• Good understanding of information technology</li> <li>• Ability to work both independently and as part of a team.</li> </ul> <p><b>3. On completion of the programme, students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Demonstrate critical understanding, at an advanced level, of up-to-date knowledge and research methodology of a particular field</li> <li>• Implement effective academic and personal strategies for carrying out research projects independently and ethically</li> <li>• Contribute original knowledge in response to issues in their specialist area</li> <li>• Communicate research findings at a diverse range of levels and through a variety of media</li> <li>• Evaluate one's own research in relation to important and latest issues in the field</li> </ul> <p><b>4. Engage in critical intellectual enquiry</b></p> <ul style="list-style-type: none"> <li>• Critically evaluate information and ideas from multiple perspectives Integrate knowledge at the forefront of a particular field</li> </ul> <p><b>5. Demonstrate a thorough understanding of research methodologies and techniques at an advanced level</b></p> <ul style="list-style-type: none"> <li>• Develop, design and implement research projects competently and Independently.</li> </ul>

<p><b>Ph.D. (Botany)</b></p>	<p><b>6. Conduct innovative, high-impact and leading edge research</b></p> <ul style="list-style-type: none"> <li>• Engage in original research that takes a new technological, methodological, or theoretical approach</li> </ul> <p><b>7. Provide novel solutions to complex problems</b></p> <ul style="list-style-type: none"> <li>• Identify and define emerging problems Offer innovative and original solutions to problems and issues in novel situations</li> </ul> <p><b>8. Demonstrate adherence to personal and professional ethics</b></p> <ul style="list-style-type: none"> <li>• Maintain the highest standards of personal and academic integrity Understand complex ethical and professional issues</li> </ul> <p><b>9. Demonstrate leadership and advocacy skills</b></p> <ul style="list-style-type: none"> <li>• Articulate analyses and propose solutions in response to social issues Communicate and disseminate research findings effectively in the academiccommunity and to stakeholders in society</li> </ul> <p><b>10. Work with others and make constructive contributions</b></p> <ul style="list-style-type: none"> <li>• Engage in intellectual exchange with researchers from other disciplines to address important research issues Collaborate effectively with researchers from different cultures</li> </ul> <p><b>JOB OPPERTUNITIES</b></p> <p><b>Taxonomist</b> -Taxonomists research about, and sub-divide types of plants into classifications, subsequent to observing their species and grouping them based on similitudes</p> <p><b>Agronomist</b> -Agronomist are soil and plant researchers who work to enhance the yield of field crops like grain and cotton. They develop techniques that help farmers in creating more yield and avoiding harvest-failures</p> <p><b>Ecologists</b> -Ecologists observe and research on plants’ relationship and behavior with the soil and with other living beings. They research on the biological categories of plants with the objective of explaining their life phenomena.</p> <p><b>Mycologists</b>- Mycologists consider growth patterns and how harming living beings harms vegetation. Mycologists are a kind of Microbiologists that observeand analyze microscopic organisms and green growth in relation to microorganisms.</p> <p><b>Plant Breeders</b> -Plant Breeders apply customary hybridizing and crossbreeding methods, instead of hereditary building, to enhance plants for human use, with focus on nature’s conservation. Plant Breeders are a type of Plant Geneticists, and</p> <ul style="list-style-type: none"> <li>• Geneticists work directly in the science of plant genomes.</li> </ul>
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