

# **NAAC**

## **Revised Format of Self-Study Report**

**(As per the NAAC Manual for Universities effective from July, 2017)**

**Qualitative Metrics to seek Descriptive data from Department**

## CRITERION I – CURRICULAR ASPECTS

### Key Indicator- 1.1 Curriculum Design and Development

Metric No. (as per NAAC Manual)	Description (as per NAAC Manual, July 2017, for Reference purposes)	Data Requirement from Department (For Academic years 2012-13 to 2016-17)
1.1.1	<b>Curricula developed/adopted relevant to local/national/global needs; program outcomes, course outcomes.</b>	<p style="text-align: center;"><b>Supporting Document required:</b></p> <p>One paper introduced at the level of Ph.D. i.e. PMB J (Research Methodology). This paper is based on literature survey, instrumentation computer application, data search, presentation &amp; writing skill.</p>

### Key Indicator- 1.3 Curriculum Enrichment

1.3.1	<b>Integration of cross-cutting issues relevant to Gender, Environment and sustainability, Human values, Professional Ethics into curriculum.</b>	<p style="text-align: center;"><b>Supporting Documents required:</b></p> <p style="text-align: center;">None</p>
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## Criterion II-Teaching -Learning and Evaluation

### Key Indicator - 2.2 Catering to Student Diversity

Metric No. (as per NAAC Manual)	Description (as per NAAC Manual , July 2017, for Reference purposes)	Data Requirement from Department (For Academic years 2012-13 to 2016-17)
2.2.1	<b>The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners</b>	Batch size is small so personal attention is given to all students. Regular presentation based instructions are given. Based on their performance special mentoring is imparted to enhance their skill and overall scientific temperament.

### Key Indicator-2.3 Teaching- Learning Process

2.3.1	<b>Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences</b>	<ul style="list-style-type: none"> <li>• Practical classes include hand-on expt in the lab and glass houses</li> <li>• Student give seminar and are evaluated as part of internal evaluation.</li> <li>• Student write tutorial on topics given.</li> <li>• Student do in house projects in IV semester and submit dissertation.</li> </ul>
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## Key Indicator- 2.6 Student Performance and Learning Outcomes

<b>2.6.1</b>	<b>Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed on website and communicated to teachers and students</b>	<p><b>Programme Specific Outcome (PSO)</b>  <u>PSO of M.Sc. in PMBB</u>                      The M.Sc. course in PMBB is designed to expose students to the latest developments in the exciting areas of modern plant sciences. This course prepares students to take up research in Plant Molecular Biology and allied areas as a possible career option as well as unable generation of manpower for the emerging plant biotechnology industry.</p> <p><u>PSO of Ph.D. in PMB</u>                      The Ph.D. course of the Department of Plant Molecular Biology is aimed at introducing students to advances in the field of plant molecular biology and plant biotechnology. The students also learn to undertake literature survey develop expertise in areas of molecular biology, computer application, data search and presentation and writing skill.</p>
<b>2.6.2</b>	<b>Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution</b>	<p><b>Course Outcomes (CO)</b>  <u>CO in M.Sc. in PMBB</u>                      CO1- Understand the basics of protein structure, folding and engineering                      CO2 – Understand the nature and basic concepts of cell biology                      CO3- Understand the basic concepts and principles behind the various techniques in molecular biology                      CO4 – Learn the basic concepts of immunology and its role in life forms.                      CO5 – Understands the basic mechanisms of gene expression in prokaryotes                      CO6- Learn the molecular basis of plant growth and development control by hormones and the signaling components                      CO7-Learn the basics of bioinformatics and analyses the databases                      CO8 – Learn the basic structure and function of eukaryotic genomes                      CO9- Understand the basic principles of pattern formation and development in plants and other model organisms                      CO10 – learn the basic principle and techniques of engineering plants                      CO11- Dissertation work involved detailed studies pertaining to a specific research problem and provides hand on experience to students for conducting</p>

		research in modern laboratory environment
<b>Criterion III- Research, Innovations and Extension</b>		
<b>Key Indicator - 3.6 Extension Activities</b>		
<b>Metric No. (as per NAAC Manual)</b>	<b>Description (as per NAAC Manual , July 2017, for Reference purposes)</b>	<b>Data Requirement from Department (For Academic years 2012-13 to 2016-17)</b>
<b>3.6.1</b>	<b>Extension activities in the neighbourhood community, if any, in terms of impact and sensitising students to social issues and holistic development during the last five years.</b>	<ul style="list-style-type: none"> <li>• The visitors from other institution, school and colleges are encouraged and make familiar with the latest technology and recent development in research and other activities.</li> <li>• Undergraduate student from various colleges of Delhi University are allowed for summer training.</li> <li>• Teachers are involved with various organizations for extension lectures and participate as resource person.</li> </ul>
<b>Criterion IV – Infrastructure and Learning Resources</b>		
<b>Key Indicator - 4.1 Physical Facilities</b>		

<b>Metric No.</b> (as per NAAC Manual)	<b>Description</b> (as per NAAC Manual , July 2017, for Reference purposes)	<b>Data Requirement from Department</b> (For Academic years 2012-13 to 2016-17)
4.1.1	<b>Facilities for teaching - learning available in Dept. / Centre as per the minimum specified requirements by the statutory bodies.</b>	Seminar Room equipped with <ul style="list-style-type: none"> <li>• Power point slide projector</li> <li>• White board and overhead projector</li> </ul>
4.1.2	<b>The institution has adequate facilities for sports, games (indoor, outdoor, gymnasium, yoga centre etc.) and cultural activities.</b>	However, cultural program like fresher party, farewell party, Diwali celebration, yoga day are celebrated in the seminar room.  Sports day is also held regularly in the winter.

## **CRITERION V: STUDENT SUPPORT AND PROGRESSION**

### **Key Indicator- 5.4 Alumni Engagement**

<b>Metric No.</b> (as per NAAC Manual)	<b>Description</b> (as per NAAC Manual , July 2017, for Reference purposes)	<b>Data Requirement from Department</b> (For Academic years 2012-13 to 2016-17)
5.4.1	<b>The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non-financial means during the last five years</b>	The Alumni are invited during the Department Symposia and conferences where they closely interact with students and staff. The 25 <sup>th</sup> DPMB silver jubilee symposium was a special one as alumini were invited for presentation of their latest work.

<b>Criterion VI: Governance, Leadership and Management</b>		
<b>Key Indicator - 6.1 Institutional Vision and Leadership</b>		
<b>Metric No. (as per NAAC Manual)</b>	<b>Description (as per NAAC Manual , July 2017, for Reference purposes)</b>	<b>Data Requirement from Department (For Academic years 2012-13 to 2016-17)</b>
<b>6.1.2</b>	<b>The institution practices decentralisation and participative management</b>	National Science day is celebrated and all the Science Departments of South Campus participate in this event.
<b>Criterion VII – Institutional Values and Best Practices</b>		
<b>Key Indicator - 7.1 Institutional Values and Social Responsibilities</b>		
<b>Metric No. (as per NAAC Manual)</b>	<b>Description (as per NAAC Manual , July 2017, for Reference purposes)</b>	<b>Data Requirement from Department (For Academic years 2012-13 to 2016-17)</b>
<b>7.1.1.2</b>	<b>Institution shows gender sensitivity in providing facilities such as:</b>  <b>a) Safety and Security</b> <b>b) Counselling</b> <b>c) Common Room</b>	One Gender Champion is recruited in the department exclusive for this purpose. Teacher incharge for gender sensitization and other faculty indulge in counseling of students from time to time . No common room is available due to lack of space.

### 7.1.2 Environmental Consciousness and Sustainability

7.1.2.3	<b>Waste Management steps</b>	<p>Proper guidelines are followed for the <b>Disposal of Biohazards</b> and Radioactive <b>Materials. Central Service for disposal of Biohazards material</b> is provided by the University. The applicable clearances for Animal Ethics and genetically modified organisms are obtained from institutional bodies through Institutional Biosafety Committee on regular basis. The principles and practices of these policies are discussed with research students from time-to-time. Many members have replaced Radioactive Label Kits to Non- Radioactive Label Kits. Proper guidelines are followed for disposal of Radioactive Waste.</p> <p>Radioactivity safety officer is appointed in the Department for monitoring the activities. Ph.D. students are introduced to lab safety and chemical safety practices.</p>
7.1.2.4	<b>Rain water harvesting structures and utilization in the department</b>	None.
7.1.2.5	<b>Green Practices</b>	<ul style="list-style-type: none"> <li>• Office reuses the used paper.</li> <li>• Maintain our own garden and green belt.</li> <li>• Segregation of waste materials.</li> <li>• Proper guidelines are followed for disposal of waste material.</li> </ul>
<b>Key Indicator - 7.2 Best Practices</b>		
7.2.1	<b>State at least two institutional best practices (as per NAAC format)</b>	<ul style="list-style-type: none"> <li>• Weekly seminars are also held every Friday in the Department, since 1988.</li> <li>• Annual Students Symposium is held in the Department regularly. Many institution in and around the city have started similar practices.</li> </ul>
<b>Key Indicator - 7.3 Institutional Distinctiveness</b>		



<p><b>7.3.1</b></p>	<p><b>Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust.</b></p>	<p>Ever since its inception, there is a strong commitment to excellence in teaching and research. Its rich academic tradition has always attracted the most talented students who later on went on to make important contributions to the society. The faculty is involved in multi-institutional as well as international projects. The research has yielded many publications and a few patents have been filed. Efforts of the faculty have been recognized in the form of fellowships to national scientific academies and national awards. While providing due emphasis for basic research and training, the Department endeavors to convert knowledge into application for human welfare.</p> <p>The Department had participated in the Rice Genome Sequencing Programme, an International effort, which has resulted in the first detailed genome sequence of an important crop plant. It has also participated in the Tomato genome project, which has been also completed and is currently part of the Wheat genome project. The Department has generated important information on abiotic stress response in plants, catalogued the genes expressed during flower and seed development, contributed to our understanding of virus-plant interactions, fruit ripening, heat stress and various small RNAs during plant stress response. The Department has developed and patented various promoters and has also commercialized one patented product to an industry.</p>