Executive Summary

Self-Assessment Report (SAR) of Program MS in Molecular Biology Assessment Cycle – I (2017-18)

Directorate of Quality Enhancement (DQE) Virtual University of Pakistan

The Virtual University of Pakistan established in 2002 with the aim to provide extremely affordable world class education to aspiring students all over the country regardless of their physical location. The University also seeks to alleviate the lack of capacity in the existing universities while simultaneously tackling the acute shortage of qualified professors in the country using free-to-air satellite television broadcasts and the Internet. To pursue this aim, the Department of Science & Technology is designated to initiate and implement the Self-Assessment process designed by Quality Assurance Agency (QAA) of HEC. The current document summarizes the findings of self-assessment process of MS in Molecular Biology program.

The department is committed to equip the students with up-to-date knowledge and competencies to become effective and inspirational teachers and/or leaders at different levels of education system. The department follows its mission in all of its courses and areas of specialization that offered at both Masters and Bachelors levels. The department feels satisfied upon completion of the following list of tasks:

- 1. The development of *Self-Assessment Report (SAR)* by a Program Team constituted for **MS** in **Molecular** program.
- 2. The conduct of critical review and submission of *Assessment Report (AR)* by an Assessment Team for **MS in Molecular program**.
- 3. Development of *Rectification Plan* by Head of Department
- 4. The tasks were completed according to the set methodology through Program and Assessment Teams nominated by the Rector on the recommendation of the Department.

Methodology

The following methodology is adopted to complete the whole SAR cycle:

1. A Program Team (PT) was nominated for the program. Initial orientation and training sessions for all members were arranged by DQE. The composition of PT is given below:

Table 1: Program Team

S. No	Name	Designation
1	Dr. Ayesha Maqbool	Assistant Professor, Department of Molecular Biology, Virtual University of Pakistan, Lahore.

- 2. All the relevant material such as SAR manual, survey forms, etc. was provided to PT.
- 3. Continuous support, guidance, and feedback were provided to PT members to prepare SAR for the said program.
- 4. After completion and submission of the final SAR by PT, the Rector on the recommendation of the HOD approved the formation of an Assessment Team (AT) for critical appraisal of

program and SAR. It is also ensured that a Subject Specialist from other institution become part of this team. The composition of AT is given below:

Table 2: Assessment Team

S. No	Name	Designation
1	Dr. Nadeem Sheikh	Associate Professor/Director Centre for Applied Molecular Biology (CAMB) at University of the Punjab, Lahore.
2	Dr. Asif Nadeem	Assistant Professor, Institute of Biochemistry and Biotechnology, University of Veterinary and Animal Sciences, Lahore.
3	Dr. Akhtar Ali	Assistant Professor, Department of Biotechnology, Virtual University of Pakistan, Lahore.

- 5. The SAR developed by PT was forwarded to AT for critical review.
- 6. After completion of critical review and assessment of the SAR, AT members visited the department and had a meeting with PT.
- 7. After the visit, AT submitted a report and feedback form (Rubric Form) to DQE.
- 8. DQE forwarded the observations & findings of AT report to the Head of Department for developing a rectification plan.
- 9. DQE will now monitor implementation of Rectification Plan.

Parameters for the SAR:

Following eight (8) criteria prescribed by the HEC are used to develop SAR:

- Criterion 1: Program Mission, Objectives and Outcomes
- Criterion 2: Curriculum Design and Organization
- Criterion 3: Laboratory and Computing Facility
- Criterion 4: Student Support and Advising
- Criterion 5: Process Control
- Criterion 6: Faculty
- Criterion 7: Institutional Facilities
- Criterion 8: Institutional Support

Key Findings of the SAR:

Following is a summary of the key SAR findings:

- 1. The mission statements of the department and program are not available on VU web site.
- 2. There is a need for a comprehensive database/portal of Books with access to the latest research Journals and periodical as well as the course books at an institutional level.
- 3. For the career counseling of student's seminars and workshops should be organized at least once in the semester and experts from industries and organizations should be invited.
- 4. Faculty offices should be provided to make student-teacher interaction more conducive for learning.
- 5. Faculty development incentives are not sufficient to boost their satisfaction level.

- 6. The program objectives mentioned in the SAR are mismatched with the objectives available on VU Website. The program outcomes need to be rephrased to align with program objectives.
- 7. The workload of the faculty members especially for those who are involved in the lab supervision should be reduced. Currently, they are working beyond the official timing as well as on weekends. Heavy workload restricts them to keep a healthy work-life balance and they are not able to spend more time for scholarly work and update their knowledge in the subject area.
- 8. There is a shortage of reference e-books in the digital library. Department has the deficiency of e-resources for the students and faculty. Faculty members are encouraged to purchase the required books, however, due to the absence of efficient reimbursement mechanism, the facility is not utilized with by the faculty members.
- 9. There is a need for the revising and revamping of the Lab manuals, which must include the safety information and must be prepared by the lab courses' teachers.

Conclusion and Recommendations:

Analysis of Criteria Referenced Self-Assessment reveals that performance of the department is good. It is reflected by overall excellent assessment score (85/100) reported by AT. In spite of the overall good score, comparatively low rating in Criterion # 7 (Institutional Facilities) is observed which need to be focused for improvement. The criterion is about retention of quality faculty members. Additionally, the issues like an insufficient number of Ph.D. faculty members in specialized areas, relatively high faculty workload as compared to other departments, the absence of career counseling for students, and revision of learning objectives/outcomes of the program required corrective actions.

The areas that require corrective actions identified during self-assessment process have been reported to the Head of respective Department for rectification. DQE will follow up the implementation plan periodically to track continuous improvement.

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The Rector:		