Executive Summary
Self-Assessment Report (SAR) of Program MS Bio-Technology
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 Biotechnology 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 Bio-Technology program.

The department is committed to producing graduates who can lead organizations towards success and prosperity in the global marketplace. The department follows its vision 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 Bio-Technology** program
2. The conduct of critical review and submission of *Assessment Report (AR)* by an Assessment Team for MS Bio-Technology program
3. Development of *Rectification Plan* by Head of Department

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

Sr.#	Name	Designation
1.	Dr. Sana Zahoor (Coordinator)	Assistant Professor (Faculty of Science and Technology)
2.	Dr. Akhta Ali	Assistant Professor (Faculty of Science and Technology)

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 the SAR for said program.

4. After completion and submission of the final SAR by PT, an Assessment Team (AT) was formed by the Rector on the recommendation of the Department. Accordingly, a Subject Specialist from other institution was also included. The composition of AT is given below:

Table 2: Assessment Team

Sr.#	Name	Designation
1.	Dr. Maryam Javed	Assistant Professor, Institute of Biochemistry and Biotechnology, (UVAS), Lahore
2.	Dr. Tanveer Hussain	Assistant Professor (Faculty of Science and Technology)

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:

The SAR is prepared on the following eight (8) criteria prescribed by the HEC:

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

Key Findings of the SAR:

Following is the summary of the key SAR findings:

Academic Observations:

1. The learning objectives and outcomes of the programs require a rephrasing because currently, these statements are lacking measurement facet.

2. The curriculum shows all the courses as elective. It is suggested to have some core courses in the degree program. The curriculum may be redesigned. The proposed curriculum is available in the detailed AT report.

3. The labs are available for the practical experience but detailed information should be provided to make evaluation more objective. There should be a lab manager in each lab to monitor the lab practical activities and facilities.

4. After admission to the degree program, there should be an orientation week about program introduction and interaction with the faculty member.

5. There is shortage of reference books in the digital library. Department has the deficiency of e-resources for the students and faculty.

6. There should be a student thesis library to update the ongoing and previous research activities in the university.

7. Faculty development incentives are not sufficient to increase their satisfaction level.

Conclusion and Recommendations:

While analyzing Criteria Referenced Self-Assessment, it has been found that performance of the department is good but still, there are many gray areas that required a rectification plan to keep department performing well. AT rated this program against a five-point scale and awarded a moderate overall assessment score (78/100). The average score endorsed that the rectification plan should be implemented immediately.

In the report, need improvement areas are identified by AT. Two criteria are rated low and become a major reason for this moderate score. The criteria rated low are: Criterion # 4 (Student Support and Advising) and Criterion # 5 (Process Control). In these criteria, AT has shown great concerns about the absence of career planning advisors for students, and the non-existence of periodic performance evaluation mechanism of different processes.

The Need Improvement areas identified during self-assessment process have been reported to the Head of respective Department and the specific rectifications have also been requested. DQE will follow up the implementation plan as per the specific time-frame.

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