Executive Summary Self-Assessment Report of Program BS Bioinformatics Self Assessment Cycle – II (2019-20)

Virtual University of Pakistan is providing world class ICT-based distance education to the aspiring students in Pakistan and abroad and addressing simultaneously the acute shortage of qualified professors in the country. To fulfill needs of Quality Assurance Agency (QAA) of HEC for ranking the program, Department of Bioinformatics and Computational Biology initiated the Self-Assessment process for BS Bioinformatics. The current document summarizes the findings of the self-assessment process of BS Bioinformatics. The process includes:

- 1. Self-Assessment Report (SAR) development by Program Team (PT).
- 2. Assessment Report (AR) by Assessment Team (AT) after critical evaluation.
- 3. *Rectification Plan* administered by the Head of Department.

The tasks were completed according to the set methodology through Program Team and Assessment Team nominated by the Rector on the recommendation of the Department.

Methodology

The department adopted the identical methodology defined by Quality Assurance Agency of HEC. The methodology includes the nomination and notification of PT and AT after approval of the competent authority. PT developed the SAR in accordance with eight (8) criteria provided by QAA. Various recommended surveys were also conducted for collecting diverse feedback. A meeting was arranged for critical evaluation of the program by AT in which Head of Bioinformatics and Computational Biology department and staff of Directorate of Quality Enhancement (DQE) were also present. After the visit, AT submitted a report and feedback form (Rubric Form) to DQE. Based on the findings of AT, the Head of Bioinformatics and Computational Biology Department was requested to develop a rectification plan.

Program Team and Assessment Team Formation

Sr.#	Name	Status	Designation
1.	Dr. Ammad Aslam Khan	PT	Assistant Professor, Department of Bioinformatics and Computational Biology
2.	Mirza Jawad ul Hasnain	PT	Lecturer, Department of Bioinformatics and Computational Biology
3.	Syed Hassan Abbas	АТ	Tutor/Instructor, Department of Bioinformatics and Computational Biology

Key Findings of the SAR:

The AT appreciated the efforts of PT to develop such a comprehensive report of the 'BS Bioinformatics' program. The AT endorsed the program structure and suggested few improvements in study scheme designed by the department. The infrastructure and support provided by the university to execute the program were also reviewed and considered

compatible with smoothing execution of the program. However, the following few observations were reported by AT in its report:

- 1. The course Islamic Studies/Ethics (for non-Muslims) should be of two (02) credit hours and offered in a separate semester than Pakistan Studies as per requirement of the HEC.
- 2. Course material should be updated annually.
- 3. Support and time should be provided for research and scholarly work and VUP officials must take appropriate measures.
- 4. Fund should be provided to faculty for development of research area especially for participation in local/international workshop/conferences.
- 5. Office infrastructures and computer related labs need to develop.
- 6. Adequate number of support personnel exists, whereas lecturer and Ph.D. faculty members should be hired.
- 7. Financial resources should be allocated to acquire and maintain library holdings.

Conclusion and Recommendations:

Analysis of the Criteria Referenced Self-Assessment reveals that performance of the department is excellent in most of the areas, however, fair performance has been observed in only one of the areas i.e. criterion 7 (Institutional Facilities). The program has secured overall good to excellent performance in all areas with assessment score (83.55/100) reported by the AT.

In accordance with AT report, it has been found that the University needs to hire more Ph. D faculty in the department. Moreover, the University library must contain the technical collection relevant to the program and adequate offices should be provided to the faculty to carry out their responsibilities.

The areas that need corrective actions identified during the self-assessment process have been reported to the Head of Bioinformatics and Computational Biology department for rectification. DQE will follow-up the rectification plan as per specific timeframe to track continuous improvement.

Muhammad Azeem Manager QA

Prepared by:

Director Quality Enhancement: