

Executive Summary
Self-Assessment Report (SAR) of Program BS (Software Engineering)
Directorate of Quality Enhancement (DQE)
Virtual University of Pakistan

Virtual University of Pakistan established in 2002 with aim to provide extremely affordable world class education to aspiring students all over the country regardless of their physical location by alleviating 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 Computer Sciences is designated to initiate and implement Self-Assessment process designed by Quality Assurance Agency (QAA) of HEC. The current document summarizes the findings of self-assessment process of BS Soft Engineering program.

The department of Computer Sciences is committed to produce graduates who can develop computer applications/processes to enhance efficiency & effectiveness of organizations to lead in global market place. The department follows its vision in all of its courses and areas of specialization offered at both Masters and Bachelors levels. The department feels satisfied upon completion of the following list of tasks:

1. Development of **Self-Assessment Report (SAR)** by Program Team for BS (SE) program
2. Conduct of critical review and submission of **Assessment Report (AR)** by Assessment Team for BS (SE) 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 in Table 1:

Table 1: Program Team

Sr.#	Name	Designation
1.	Mr. Asif Hussain	Lecturer (Computer Science)
2.	Mr. Said Nabi	Instructor (Computer Science)
3.	Mr. Sajjad Ali	Instructor (Computer Science)

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 PT is given in Table 2:

Table 2: Assessment Team

Sr.#	Name	Designation
1.	Dr. Naveed Ikram (PhD)	Associate Professor, Faculty of Computing Riphah International University, Islamabad
2.	Mr. Waqas Ahmad	Instructor (Computer Science)
3.	Ms. Jawaria Sadiq	Instructor (Computer Science)

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 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 SAR:

A summary of the key findings from SAR is given below:

Academic Observations:

1. The evidence that program objectives and outcomes are aligned with mission statement of the program/department is missing. The link between learning objectives and outcomes is not available.
2. The details whether courses offered by VU meet the core/major/general education requirements of the program are not available.
3. The information about adequate computing facilities, appropriate infrastructure and availability of sufficient support staff at every campus is missing. Owing to lack of physical access to every campus, it is hard to verify whether every student has access to various lab manuals.
4. There is no mechanism available for professional counseling of students. There is no opportunity available for students to interact with practitioners, and to have membership in technical and professional societies.
5. For processes such as admission, academic assessment, recruitment etc. qualitative and quantitative criteria for evaluation must exist. Also, this is not predictable as to how frequently these processes are reviewed.
6. The mechanism for measuring the effective and active learning of students is missing.
7. Most of the faculty of VU is related to CS domain; however, the faculty having SE specialization is not available in adequate number. At the same time, no faculty member having Ph.D. in SE discipline is available.
8. The faculty should do more research having implications for their subject areas being taught at VU. Moreover, the report contains incomplete information about faculty development and retention.
9. It is not predictable through available information as to what extent the current computing facilities support new trends of SE discipline.
10. The department has the deficiency of books related to SE and physical library relevant to this program. Full access to e-books and e-journals should be provided to faculty. There is no mechanism available for getting technical information to support program requirements. It is not predictable as to how much financial resources are allocated for library facilities and personnel.

Administrative Observations:

- There is shortage of faculty offices. However, the existing offices for faculty should be improved to maximize their productivity. There should be separate cabins for each faculty member where faculty can fulfill its professional responsibilities without any disturbance.
- Shortage of faculty members having SE specialization is observed.
- Student – teacher ratio is not clearly defined in the report.

- Financial resources to acquire and maintain library holdings, laboratories and computing facilities should be documented

Conclusion and Recommendations:

While analyzing Criteria Referenced Self-Assessment, it has been observed that performance of the department is not satisfactory as many gray areas have been identified/reported by AT due to which the department is perceived as underperformed. This perception is reflected in terms of very low overall assessment score (41/100) reported by AT. This low score calls for immediate implementation of rectification plan.

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.

Rizwan Saleem Sandhu
Deputy Director, DQE

Advisor DQE: _____

The Rector: _____