

# Virtual University of Pakistan

## Assessment Team Report

### Department of Bioinformatics and Computational Biology

#### BS Bioinformatics

#### Criteria Referenced Evaluation

|             | Poor performance in most of the areas. | Fair performance in most of the areas. | Good performance for most areas / No poor performance in any areas. | Good to excellent performance in all areas. | Excellent performance in all areas. | Score |
|-------------|--|--|---|---|-------------------------------------|-------|
| Criterion 1 |  |  |   |   | ✓                                   | 4.83  |
| Criterion 2 |  |  |   |   | ✓                                   | 19.50 |
| Criterion 3 |  |  |   |   | ✓                                   | 9.33  |
| Criterion 4 |  |  |   |   | ✓                                   | 10.00 |
| Criterion 5 |  |  |   | ✓   |                                     | 11.73 |
| Criterion 6 |  |  | ✓   |   |                                     | 13.71 |
| Criterion 7 |  |  |   | ✓   |                                     | 8.00  |
| Criterion 8 | ✓                                      |  |   |   |                                     | 2.00  |

| <b>Criterion 1 – Program Mission, Objectives and Outcomes</b>   |  |   |              |          |          | <b>Weight =</b> | <b>0.05</b> |
|---|--|---|--------------|----------|----------|-----------------|-------------|
| <b>Factors Score</b>  |  |   |              |          |          |                 |             |
| 1   | Does the Program have documented measurable objectives that support faculty / college and institution mission statements?  | ✓ | 4            | 3        | 2        | 1               |             |
| 2   | Does the Program have documented outcomes for graduating students?   | ✓ | 4            | 3        | 2        | 1               |             |
| 3   | Do these outcomes support the Program objectives?  | 5 | ✓            | 3        | 2        | 1               |             |
| 4   | Are the graduating students capable of performing these outcomes?  | ✓ | 4            | 3        | 2        | 1               |             |
| 5   | Does the department assess its overall performance periodically using quantifiable measures?   | ✓ | 4            | 3        | 2        | 1               |             |
| 6   | Is the result of the Program Assessment documented?  | ✓ | 4            | 3        | 2        | 1               |             |
| <b>Total Encircled Value (TV)</b>                               |  |   | <b>25</b>    | <b>4</b> | <b>0</b> | <b>0</b>        | <b>0</b>    |
| <b>Score 1 (S1) = [TV/(No. of Questions *5)] *100 *Weight =</b> |  |   | <b>4.83</b>  |          |          |                 |             |
| <b>Criterion 2 – Curriculum Design and Organization</b>         |  |   |              |          |          | <b>Weight =</b> | <b>0.20</b> |
| <b>Factors Score</b>  |  |   |              |          |          |                 |             |
| 1   | Is the curriculum consistent?  | ✓ | 4            | 3        | 2        | 1               |             |
| 2   | Does the curriculum support the program's documented objectives?   | ✓ | 4            | 3        | 2        | 1               |             |
| 3   | Are theoretical background, problem analysis and solution design stressed within the program's core material?  | ✓ | 4            | 3        | 2        | 1               |             |
| 4   | Does the curriculum satisfy the core requirements laid down by respective accreditation bodies? (refer Appendix A of the Self Assessment Manual)                             | ✓ | 4            | 3        | 2        | 1               |             |
| 5   | Does the curriculum satisfy the major requirements laid down by HEC and the respective councils / accreditation bodies?  | ✓ | 4            | 3        | 2        | 1               |             |
| 6   | Does the curriculum satisfy the general education, arts and professional and other discipline requirements as laid down by the respective / accreditation bodies / councils? | ✓ | 4            | 3        | 2        | 1               |             |
| 7   | Is the information technology component integrated throughout the program?   | ✓ | 4            | 3        | 2        | 1               |             |
| 8   | Are oral and written skills of the students developed and applied in the program?  | 5 | ✓            | 3        | 2        | 1               |             |
| <b>Total Encircled Value (TV)</b>                               |  |   | <b>35</b>    | <b>4</b> | <b>0</b> | <b>0</b>        | <b>0</b>    |
| <b>Score 2 (S2) = [TV/(No. of Questions *5)] *100 *Weight =</b> |  |   | <b>19.50</b> |          |          |                 |             |
| <b>Criterion 3 – Laboratories and Computing Facilities</b>      |  |   |              |          |          | <b>Weight =</b> | <b>0.10</b> |
| <b>Factors Score</b>  |  |   |              |          |          |                 |             |
| 1   | Are laboratory manuals / documentation / instructions etc. for experiments available and readily accessible to faculty and students?   | 5 | ✓            | 3        | 2        | 1               |             |
| 2   | Are there adequate number of support personnel for instruction and maintaining the laboratories?   | ✓ | 4            | 3        | 2        | 1               |             |
| 3   | Are the university's infrastructure and facilities adequate to support the program objectives?   | ✓ | 4            | 3        | 2        | 1               |             |
| <b>Total Encircled Value (TV)</b>                               |  |   | <b>10</b>    | <b>4</b> | <b>0</b> | <b>0</b>        | <b>0</b>    |
| <b>Score 3 (S3) = [TV/(No. of Questions *5)] *100 *Weight =</b> |  |   | <b>9.33</b>  |          |          |                 |             |
| <b>Criterion 4 – Student Support and Advising</b>               |  |   |              |          |          | <b>Weight =</b> | <b>0.10</b> |
| <b>Factors Score</b>  |  |   |              |          |          |                 |             |
| 1   | Are the courses being offered in sufficient frequency and number for the students to complete the program in a timely manner?  | ✓ | 4            | 3        | 2        | 1               |             |
| 2   | Are the courses in the major area structured to optimize interaction between the students, faculty and teaching assistants?  | ✓ | 4            | 3        | 2        | 1               |             |
| 3   | Does the university provide academic advising on course decisions and career choices to all students?  | ✓ | 4            | 3        | 2        | 1               |             |
| <b>Total Encircled Value (TV)</b>                               |  |   | <b>15</b>    | <b>0</b> | <b>0</b> | <b>0</b>        | <b>0</b>    |
| <b>Score 4 (S4) = [TV/(No. of Questions *5)] *100 *Weight =</b> |  |   | <b>10.00</b> |          |          |                 |             |

| <b>Criterion 5 – Process Control</b>                            |   |              |          |          |          | <b>Weight =</b> | <b>0.15</b> |
|---|---|--------------|----------|----------|----------|-----------------|-------------|
| <b>Factors Score</b>  |   |              |          |          |          |                 |             |
| 1   | Is the process to enroll students to a program based on quantitative and qualitative criteria?  | 5            | ✓        | 3        | 2        | 1               |             |
| 2   | Is the process above clearly documented and periodically evaluated to ensure that it is meeting its objectives?   | 5            | ✓        | 3        | 2        | 1               |             |
| 3   | Is the process to register students in the program and monitoring their progress documented?  | ✓            | 4        | 3        | 2        | 1               |             |
| 4   | Is the process above periodically evaluated to ensure that it is meeting its objectives?  | ✓            | 4        | 3        | 2        | 1               |             |
| 5   | Is the process to recruit and retain faculty in place and documented?   | ✓            | 4        | 3        | 2        | 1               |             |
| 6   | Are the processes for faculty evaluation & promotion consistent with the institution mission?   | 5            | 4        | 3        | 2        | ✓               |             |
| 7   | Are the processes in 5 and 6 above periodically evaluated to ensure that they are meeting their objectives?   | 5            | 4        | 3        | 2        | ✓               |             |
| 8   | Do the processes and procedures ensure that teaching and delivery of course material emphasize active learning and that course learning outcomes are met? | ✓            | 4        | 3        | 2        | 1               |             |
| 9   | Is the process in 8 above periodically evaluated to ensure that it is meeting its objectives?   | 5            | 4        | ✓        | 2        | 1               |             |
| 10  | Is the process to ensure that graduates have completed the requirements of the program base on standards and documented procedures?                       | ✓            | 4        | 3        | 2        | 1               |             |
| 11  | Is the process in 10 above periodically evaluated to ensure that it is meeting its objectives?  | ✓            | 4        | 3        | 2        | 1               |             |
| <b>Total Encircled Value (TV)</b>                               |   | <b>30</b>    | <b>8</b> | <b>3</b> | <b>0</b> | <b>2</b>        |             |
| <b>Score 5 (S5) = [TV/(No. of Questions *5)] *100 *Weight =</b> |   | <b>11.73</b> |          |          |          |                 |             |
| <b>Criterion 6 – Faculty</b>                                    |   |              |          |          |          | <b>Weight =</b> | <b>0.20</b> |
| <b>Factors Score</b>  |   |              |          |          |          |                 |             |
| 1   | Are there enough full time faculty members to provide adequate coverage of the program areas / courses with continuity and stability?                     | ✓            | 4        | 3        | 2        | 1               |             |
| 2   | Are the qualifications and interests of faculty members sufficient to teach all courses, plan, modify and update courses and curricula?                   | ✓            | 4        | 3        | 2        | 1               |             |
| 3   | Do the faculty members posses a level of competence that would be obtained through graduate work in the discipline?                                       | ✓            | 4        | 3        | 2        | 1               |             |
| 4   | Do the majority of faculty members hold a PhD degree in their discipline?   | 5            | 4        | ✓        | 2        | 1               |             |
| 5   | Do faculty members dedicate sufficient time to research to remain current in their disciplines?   | 5            | ✓        | 3        | 2        | 1               |             |
| 6   | Are there mechanisms in place for faculty development?  | 5            | 4        | 3        | 2        | ✓               |             |
| 7   | Are faculty members motivated and satisfied so as to excel in their profession?   | 5            | 4        | 3        | 2        | ✓               |             |
| <b>Total Encircled Value (TV)</b>                               |   | <b>15</b>    | <b>4</b> | <b>3</b> | <b>0</b> | <b>2</b>        |             |
| <b>Score 6 (S6) = [TV/(No. of Questions *5)] *100 *Weight =</b> |   | <b>13.71</b> |          |          |          |                 |             |
| <b>Criterion 7 – Institutional Facilities</b>                   |   |              |          |          |          | <b>Weight =</b> | <b>0.10</b> |
| <b>Factors Score</b>  |   |              |          |          |          |                 |             |
| 1   | Does the institution have the infrastructure to support new trends such as e-learning?  | ✓            | 4        | 3        | 2        | 1               |             |
| 2   | Does the library contain technical collection relevant to the program and is it adequately staffed?   | 5            | ✓        | 3        | 2        | 1               |             |
| 3   | Are the class rooms and offices adequately equipped and capable of helping faculty carry out their responsibilities?                                      | 5            | 4        | ✓        | 2        | 1               |             |
| <b>Total Encircled Value (TV)</b>                               |   | <b>5</b>     | <b>4</b> | <b>3</b> | <b>0</b> | <b>0</b>        |             |
| <b>Score 7 (S7) = [TV/(No. of Questions *5)] *100 *Weight =</b> |   | <b>8.00</b>  |          |          |          |                 |             |

| Criterion 8 – Institutional Support                             |  |             |          |          | Weight = | 0.10     |
|---|--|-------------|----------|----------|----------|----------|
| Factors Score   |  |             |          |          |          |          |
| 1   | Is there sufficient support and finances to attract and retain high quality faculty?                   | 5           | 4        | 3        | 2        | ✓        |
| 2   | Are there an adequate number of high quality graduate students, teaching assistants and Ph.D students? | 5           | 4        | 3        | 2        | ✓        |
| <b>Total Encircled Value (TV)</b>                               |  | <b>0</b>    | <b>0</b> | <b>0</b> | <b>0</b> | <b>2</b> |
| <b>Score 8 (S8) = [TV/(No. of Questions *5)] *100 *Weight =</b> |  | <b>2.00</b> |          |          |          |          |

**OVERALL ASSESSMENT SCORE =**

**S1 + S2 + S3 + S4 + S5 + S6 + S7 +S8**

**= 4.83 + 19.50 + 9.33 + 10.00 + 11.73 +  
13.71 + 8.00 + 2.00**

**= 79.11 / 100**

**Comments:**