

SELF ASSESSMENT REPORT

DEPARTMENT OF PHARMACY



SHAHEED BENAZIR BHUTTO UNIVERSITY
SHERINGAL DIR UPPER, KHYBER PAKHTUNKHWA

Submitted to

Quality Enhancement Cell
Shaheed Benazir Bhutto University Sheringal

Program Team Members

- | | |
|------------------|----------------------|
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ACKNOWLEDGEMENTS

The present report is the first self-assessment report written by the Department of Pharmacy at Shaheed Benazir Bhutto University Sheringal, Dir Upper. The report represents the first step towards achieving Quality Assurance in higher education offered by the department. This report is a comprehensive campaign carried out by the Department of Pharmacy, under the guidelines of HEC Self-Assessment Manual.

In preparing the present report, we rely mainly on the templates of self-assessment manual issued by the Quality Enhancement Cell, Shaheed Benazir Bhutto University, Sheringal. The report includes in its first part a definitive introduction to the Program Mission, Objectives and Outcomes of the degree offered. The second part consists of the Curriculum Organization. After that, the report reviews the required criteria for the self-assessment and the related standards according to the specifications of SAR. We hope that we have been successful in writing of this report, and that we achieve the minimum requirements of SAR. Continuous improvement is a focus of our department and is done every day as a natural part of our profession. We strive always to improve processes that are weak and fix processes that are broken.

I am thankful to all faculty members who provided valuable information included in this report. I hope that this report will be used to identify the strengths and weaknesses in the program, which after all, is the main objective of this exercise. We further hope that all points of strengths would be further enhanced and corrective actions will be taken to improve the weaknesses.

In preparing of this report, I must acknowledge the contribution of Mr. Ibrar Hussain, Assistant Director QEC and the support provided by the Quality Enhancement Cell, Shaheed Benazir Bhutto University of Sheringal.

Mr. Hamid Afridi
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INTRODUCTION

The main purpose of the QEC is to use the yard sticks of Self-Assessment (SA) to improve the quality in different quarters of the academia. The basic theme in any SA activity is not only to accept the demerits and other weaknesses identified by the stakeholders but to improve the overall performance of the department.

Under the umbrella of QEC, the Self-Assessment Program is being implemented in the departments of Pharmacy, Shaheed Benazir Bhutto University, and Sheringal. This is a basic step in improving students' learning and evaluating in compliance with academic and learning standards of HEC. The office of QEC has conducted seminars and meetings with Chairmen/ Program Team members and faculty members, to clear the vision of QEC in the context of Self-Assessment.

Criterion 1 – Program Mission, Objectives and Outcomes

UNIVERSITY MISSION AND OBJECTIVES

1. To enlighten the darkness of this remote area through education.
2. To preserve & conserve the “Natural Resources” of this area through human resource development.
3. To enlighten the youngsters, Girls & Boys with educational power to serve the nation in various fields.
4. To act as an “Intellectual Fort” against anti-state mentality through education.
5. To make the University one of the best institutes for learning and research

PROGRAM MISSION

To educate and trains the students with current state-of-the-art concepts and technologies in order to produce high quality professional under-graduate to steer them in Pharmacy and related fields for global challenges, while keeping in view the social, ethical and national norms.

Standard 1-1: The program must have documented measurable objectives that support faculty / college and institution mission statements

1. To promote basic knowledge regarding Pharmacy and its allied areas.
2. To equip the students with up to date knowledge to identify problems in community and its appropriate solution, through organized efforts.
3. To develop new problem-solving approaches those provide better Pharmaceutical solutions.
4. To provide students with good presentation and communication skills to cultivate adaptability for the work place and participation in society.
5. To provide students with an understanding and appreciation of the social consequences of technologies that may arise in day to day life.
6. To develop a foundation for continuing education that promotes professional advancement in the field of Pharmacy.

Standards1-2: The program must have documented outcome for graduating students .It must be demonstrated that the outcome support the program objective and that graduating students are capable of performing these outcomes.

1. At the end of program the students should be able to identify problems and to create effective, efficient solutions using new technologies.
2. An ability to apply knowledge of Pharmacy and Pharmaceutical practice appropriate to the discipline.
3. An ability to analyze a problem, and identify and define the pharmaceutical requirements appropriate to its solution.
4. An ability to use current techniques, skills, and tools necessary for applied pharmacy practices.
5. The student will learn to communicate effectively in career and in organization.
6. An understanding of professional, ethical, legal, educational and social issues and responsibilities.
7. Moreover the students have the ability to think critically in the various fields of Pharmacy.

Program Objectives	Program Outcomes					
	1	2	3	4	5	6
1	√	√				
2		√				
3			√	√		
4					√	
5						√
6					√	

Standard 1-3: The results of programs assessment and the extent to which they are used to improve the program must be documented

The assessment of graduating students’ survey, have been conducted by the QEC team, the strength and weaknesses identified from the survey is listed below.

Average quantitative assessment of the courses being taught to Pharm-D4th semester
 A: Strongly Agree B: Agree C: Uncertain D: Disagree E: Strongly Disagree

Course:					
The Subject matter presented in the course has increased your knowledge of the subject	58.7	30.4	2.0	6.7	2.0
The syllabus clearly states course objectives requirements, procedures and grading criteria	44.8	37.6	5.1	7.7	4.6
The course integrates theoretical course concepts with real-world applications	51.0	32.9	5.1	6.1	4.6
The assignments and exams covered the materials presented in the course	0.0	2.0	12	46	38.6
The course material is modern and updated	47.4	42.7	6.7	2.0	1.03

Standard 1-4: The department must assess its overall performance periodically using quantifiable measures.

Present students' enrolment (Pharm-D)

Year	Enrollment	Student/ Faculty Ratio
2009	14	5:1
2010	24	12:1
2011	25	14:1
2012	35	10:1
2013	0*	10:1

**The admission is subjected to the grant of NOC by Pharmacy council of Pakistan.*

	Journal publication (HEC recognized only)	Ongoing projects	Faculty awarded excellence in research award	Conference publications
Total No	Nil	Nil	Nil	30

Journal/conference papers

Shafiq Khan

1. **Shafiqur Rahman**, Muhammad Ismail, Amir Zada, Muzafar Abbas (2013). Pharmacological screening of chloroform, ethyl acetate and aqueous fractions of *Pistaciaintegerrima* Stewart ex Brandis bark. *Journal of Ethno pharmacology*. **In progress**
2. Sajid Khan Sadozai, Kamran Ahmad Chishti, RoohUllah, Zahid Hussain, Majid Khan Sadozai, **Shafiq Ur Rahman** and FarhadUllah(2013).Comparative Study of Domperidone Sustained Release Matrix Tablets Prepared by Wet Granulation and Solvent Evaporation Techniques Using Xanthan Gum.*Middle-East Journal of Scientific Research* Vol. 15 (9): 1206-1214.
3. Muhammad Ismail, **Shafiqur Rahman**, Amir zada, Roohullah, Naveed Muhammad and Muzafar Abbas (2012).Analgesic, anti GIT motility and toxicological activities of *Pistaciaintegerrima* Stewart ex Brandis bark in mice. *Journal of Medicinal Plants Research*.Vol. 6 (14): 2827-2831.
4. Naveed Muhammad, ShahidZaman, **Shafiqur Rahman**, Salim Khan and Qaisar Khan (2012). Need of Clinical Pharmacist in Hospital Institutions. *International Journal of Pharmacy Research*.Vol. 3 (2): 84-86.
5. Muhammd Ismail, Muhammad Ibrar, **Shafiqur Rahman** and UzmaNiaz(2012). Pharmacognostic investigation of the leaves and rhizomes of *Geranium Wallichianum* D. Don Ex. Sweet. *Journal of Medicinal Plants Research*. Vol. 6 (3): 504 -509.
6. **ShafiqurRahman**, Muhammad Ismail, Muzafar Abbas,and NaveedMuhammad (2011). Study of antipyretic activity of *Pistaciaintegerrima* Stewart ex Brandis bark in Balb-C mice.*Journal of Pharmacy Research*.Vol. 4 (12): 4411-4412.

7. Muhammd Imran, Najmul Hassan, M. Shifa Khan, Kishwar Sultana, SaeedulHaq, **Shafiqur Rahman** and Sajid khan Sadozai(2011). Comparative in vitro analysis of different available brands of paracetamol in Pakistan. *Journal of Pharmacy Research*.Vol.4 (12):4399-4401.
8. Muhammad Asif Khan, Muhammad Saeed, Amir Badshah, Naveed Muhammad, Jahangir Khan, Farhat Ali Khan, Haroon Khan and **Shafiqur Rahman**. (2011). Design, formulation, optimization and evaluation of sustained release tablets of domperidone.*African Journal of Pharmacy and Pharmacology*.Vol. 5 (16): 1882-1887.
9. NailaRaziq, Naveed Muhammad, Kamran Ahmad Chishti, Muhammad Saeed, **Shafiqur Rahman** and Haroon Khan (2011). Correlation of the antioxidant capacity with the phenolic contents of *Hypericummonogynum* and *Hypericumperforatum*.*African Journal of Pharmacy and Pharmacology*. Vol. 5 (16): 1872-1876.
10. **Shafiqur Rahman**, Muhammad Imran, Naveed Muhammad, Sajid Khan Sadozai and Najmul Hassan (2011). Antibacterial screening of leaves and stem of *Carica papaya*. *Journal of Medicinal Plants Research*.Vol. 5 (20): 5167-5171.
11. **Shafiqur Rahman, Muhammad Ismail, Naveed Muhammad, Farhat Ali, kamran Ahmad Chishti and Muhammad Imran (2011). Evaluation of the stem bark of PistaciaintegerrimaStew ex Brandis for its Antimicrobial and phytotoxic activities. African Journal of Pharmacy and Pharmacology. Vol. 5 (8): 1170-1174.**
12. Muahammad Ismail, **Shafiqur Rahman**,Naveed Muhammad, NadeemMohani and Javid Hussain (2011). Pharmacognostic and phytochemical investigations of the bark of *PistaciaintegerrimaStew exBrandis*. *Journal of Medicinal Plants Research*.Vol. 5 (16): 3891-3895.
13. Ali, Niaz, **Rahman S**, Shah SWA, Khan J, Rehman S, Imran M, Hussian I, ShehbazN, Jamshed H and Khan S (2010). Pharmacotherapy based problems in the management of diabetes mellitus: Needs much more to be done! *Journal of young Pharmacists*. Vol. 2 (3): 311-314.
14. Ali, Niaz, **Rahman S**, Imran M, Hussian I, Shehbaz N, Jamshed H, Hayat A, Khan S and Anwar MJ (2009). The in-practice prescribing pattern for antibiotics in the management of diabetic foot: Needs much more to be done!*Journal of Young Pharmacists*. Vol.1(4):375-378.

Abidullah&Zul Kamal

15. **Abidullah**,Hussain H, Ahmad S, Kamal Z, Ullah S. “ Pharmacotherapeutical study of peptic ulcer disease”*International journal of Research in Applied, Natural and Social Sciences*,vol 1, Issue 3, (2013) 29-36.
16. **Abidullah**, Kamal Z, Ullah G, Hussain H. “To determine the rational use of antibiotics; a case study conducted at Medical Unit Hayatabad Medical Complex, Peshawar” *International journal of Research in Applied, Natural and Social Sciences*,vol 1, Issue 2, (2013) 61-68.
17. Ali Niaz, **Abidullah**, AkhterSohail, S.WadoodAlliShah,Junaid M “Smoking and other associated high risk predictors for peptic ulcer- A single centre experience at Tertiary Care Hospital of Khyber Pakhtunkhwa”*Journal of Khyber medical university (paper accepted)*.

1. **Khan, A.**, Wang, W., Khan, S.R. (2013). Calcium oxalate nephrolithiasis and expression of matrix GLA protein in the kidneys. *World J Urol.* 2013 Mar 9. [Epub ahead of print]. (IF = **2.888**)
2. Rehman, NU., **Khan A.**, Fatma, U., Akram, M., Al-musayeib, N., Al-Massarani, S., El-Gamal, A., Gilani, A.H. (2013) "Presence of laxative and antidiarrheal activities in Prriplocaaphyla: A Saudi Medicinal Plant." *Int. J. Pharmacol;* 9(3): 190-196. (IF = **1.2**)
3. Bashir, S., Abbas, S., **Khan, A.**, Gilani, A.H. (2013). Studies on bronchodilator and cardiac stimulant activities of *Urgineaindica*. *Bangladesh J Pharmacol;* 8: 249-254. (IF = **0.356**)
4. **Khan, A.** Rehman, N.U., Taweel, S.P, Fawzy, G.A., Gilani, AH. (2012). Studies on Prokinetic, Laxative, Antidiarrheal and Gut Modulatory Activities of the Aqueous-methanol Extract of *Celtisafricana* and Underlying Mechanisms. *Int. J Pharmacol* 8, 701-707. (IF = **1.2**)
5. **Khan, A.**, Khan, S.R., Gilani, A.H. (2012). Studies on the *in vitro* and *in vivo* antiurolithic activity of *Holarrhenaantidysenterica*. *Urolithiasis (Formerly called Uro Res)*. **40**. 671-81. (IF = **1.591**)
6. **Khan, A.**, Bashir, S., Gilani, A.H. (2012). An *in vivo* study on the diuretic activity of *Holarrhenaantidysenterica*. *Afr J Pharm Pharmacol* **6**, 454-58. (IF = **0.5**)
7. Abbas, S., Bashir, S., **Khan, A.**, Mehmood, M.H. & Gilani, A.H. (2012). Gastrointestinal Stimulant Effect of *Urgineaindica* Kunth and involvement of Muscarinic Receptors. *Phytother Res* **26**, 704-08. (IF = **2.068**)
8. Zuo, J., **Khan, A.**, Glenton, P.A., Khan, S.R. (2011). Effect of NADPH oxidase inhibition on the expression of kidney injury molecule and calcium oxalate crystal deposition in hydroxy-L-proline-induced hyperoxaluria in the male Sprague-Dawley rats. *Nephrol Dial Transplant* **26**, 1785-96. (IF = **3.371**)
9. **Khan, A.**, Bashir, S., Khan, S.R., Gilani, A.H. (2011). Antiurolithic activity of *Origanumvulgare* is mediated through multiple pathways. *BMC Complement Altern Med* **11**, 96. (IF = **2.082**)
10. **Khan, A.**, Rehman, N., AlKharfy, K.M. & Gilani, A.H. (2011). Antidiarrheal and antispasmodic activities of *Salvia officinalis* are mediated through activation of K⁺ channels. *Bangladesh J Pharmacol* **6**, 111-16. (IF = **0.356**)
11. Khan, S.R., **Khan, A.**, Byer, K.J. (2011). Temporal changes in the expression of mRNA of NADPH oxidase subunits in renal epithelial cells exposed to oxalate or calcium oxalate crystals. *Nephrol Dial Transplant* **26**, 1778-85. (IF = **3.371**)
12. Gilani, A.H., **Khan, A.**, Khan, A.U., Bashir, S., Rehman, N.U., Mandukhail, S.U. (2010). Pharmacological basis for the medicinal use of *Holarrhenaantidysenterica* in gut motility disorders. *Pharm Biol* **48**, 1240-46. (IF = **1.206**)
13. Gilani, A.H., Mandukhail, S.U., Iqbal, J., Yasinzai, M., Aziz, N., **Khan, A.** & Rehman, N.U. (2010). Antispasmodic and vasodilator activities of *Morindacitrifolia* root extract are mediated through blockade of voltage dependent calcium channels. *BMC Complement Altern Med* **10**, 2. (IF = **2.082**)

Posters/Abstracts Presented in International Conferences (Conference papers)

1. **American Urological Association (AUA) Annual Meeting (2013)**, San Diego, GA, USA
Aslam Khan, Wei Wang, Saeed R Khan. "Role Of Matrix Gla Protein (MGP) In Stone Formation, Results Of Experimental Studies. [abstract] *The Journal of Urology* (2013), vol189, 4S, e850-Supplement.
2. **1st meeting of the EAU Section of Urolithiasis (EULIS)"** Sept, 2011, London, UK.
Aslam Khan, Anwarul Hassan Gilani, Saeed R. Khan "Expression of Matrix Gla Protein in MDCK cells exposed to Oxalates, Calcium Oxalate Monohydrate and Hydroxy Apatite crystals." *European Urology Supplements* (2011), vol. 10 (4), pp 466-467.
3. **American Society of Nephrology (ASN) Kidney Week (2011)**, Washington DC.
Saeed R Khan, **Aslam Khan**. "Calcium Oxalate Crystal Deposition Is Associated with Production of More Urinary Osteopontin, Monocyte Chemo-attractant Protein-1 and Kidney Injury Molecule than Hyperoxaluria Alone in an Experimental Rat Model". *Journal of the American Society of Nephrology* (2011), vol 22, p 940-941.
4. **American Urological Association (AUA) Annual Meeting (2010)** Washington, DC.
Saeed R. Khan, **Aslam Khan**, Pat Grinton, Jain Zuo. "Effect of apocynin on expression of kidney injury molecule-1 & CaOx crystal deposition in hyperoxaluric rats" *Journal of Urology*(2011), Vol 185 (4), p e820.
5. **16th World Congress of Basic and Clinical Pharmacology**, Copenhagen, Denmark, 17-23 July 2010.
Aslam Khan, Anwarul Hassan Gilani. "Pharmacological basis for the medicinal use of *Origanum vulgare* Linn. In Urolithiasis." *Basic and Clinical Pharmacology and Toxicology*(2010), vol 107 (1), p 372.

Abstracts and Posters Presented in National Conferences/meetings

1. Saima Abbas, Samra Bashir, **Aslam Khan**, Anwarul Hassan Gilani. "Pharmacological basis for the medicinal uses of *Trianthemaportulacastrum* Linn. As purgative and bronchodilator." 7th Health Sciences Research Assembly 2012, Aga Khan University Hospital Karachi, Pakistan. 20-21 December, 2012.
2. Rai Dilawar Shahjehan, **Aslam Khan**, Anwarul-Hassan Gillani. "An insight into the mechanism of anti-diarrhoeal activity of *Buddlejapolytachya* [Poster]" Research Module Poster presentation, Aga Khan University Medical College, Feb 10th 2012.
3. Maryam Nazneen, **Aslam Khan**, Anwarul-Hassan-Gilani. "*Celtis Africana*-An *in-vitro* study for its use in gastrointestinal disorders [Poster]" Research Module Poster presentation, Aga Khan University Medical College, Feb 10th 2012
4. **Aslam Khan**, Samra Bashir, Anwarul Hassan Gilani. "*In vitro* and *in vivo* efficacy of *Trachyspermum ammi* Linn in urolithiasis" Health Sciences Research Assembly 2010, Aga Khan University Hospital Karachi, Pakistan. 9-10 March, 2010.
5. **Aslam Khan**, Nataly Martini, Raul Caceres, Anwarul Hassan Gilani. "An International health science project on water born diseases" Health Sciences Research Assembly 2010, Aga Khan University Hospital Karachi, Pakistan. 9-10 March, 2010.

6. Malik Hassan Mehmood, Najeeb-ur-Rehman, **Aslam Khan**, Anwarul-Hassan Gilani^{1*}“Laxative effect of *Phyllanthusemblica* fruit extract with gut modulating activities” 12th International Symposium on Natural Product Chemistry, Page No. 172. HEJ Research Institute, University of Karachi, Pakistan, Nov 22-25, 2010.
7. **Aslam Khan**, Samra Bashir, Anwarul Hassan Gilani. “A Study on the diuretic activity of *Holarrhenaantidysentrica*”. Health Sciences Research Assembly 2008, Aga Khan University Hospital Karachi, Pakistan. 28-30 December 19, 2008.
8. **Aslam Khan**, Arifullah Khan, Samra Bashir, NajeeburRehman, Anwarul Hassan Gilani. “Pharmacological basis for the medicinal use of *Holarrhenaantidysentrica* in gut motility disorders”. Health Sciences Research Assembly 2008, Aga Khan University Hospital Karachi, Pakistan.28-30 December 19, 2008.
9. Najeeb-ur-Rehman, Malik Hassan Mehmood, Saf-ur-Rehman, **Aslam Khan**, Anwarul Hassan Gilani. “Antispasmodic effect of *Pimpinellaanisum* is mediated through activation of K⁺-channel”. Health Sciences Research Assembly 2008, Aga Khan University Hospital Karachi, Pakistan.28-30 December 19, 2008.
Health Sciences Research Assembly 2008, Aga Khan University Hospital Karachi, Pakistan.28-30 December 19, 2008.

Criterion 2 – Curriculum Design and Organization

A curriculum is designed and organized to achieve the program's objectives and outcomes. Curriculum standards are specified in terms of credit hours of study. A semester credit hour equals one class hour or two to three lab hours per week. The semester is approximately fifteen weeks. Curriculum design and organization information provided below for Pharm-D program.

Standard 2-1: The curriculum must be consistent and supports the program's documented objectives

Title of Degree Program: Doctor of Pharmacy

The following table shows the curriculum organization for the entire Pharm-D Program.

First Year		
1st Semester		
Course #	Title	Cr. Hr.
301	Pharmaceutical Chemistry-I(Organic-I) [Th.]	3
303	Pharmaceutical Chemistry-I (Organic-I) [Lab.]	1
305	Pharmaceutical Biochemistry-I [Th.]	3
307	Pharmaceutical Biochemistry-I [Lab.]	1
309	Pharmaceutics-I (Physical Pharmacy-I)[Th.]	3
311	Pharmaceutics-I (Physical Pharmacy-I)[Lab]	1
313	Physiology & Histology -I [Th.]	3
315	Physiology & Histology -I [Lab.]	1
317	Anatomy	3
319	Pharmaceutical Mathematics	2
	Total Credit Hours	21
First Year		
2nd Semester		
Course #	Title	Cr. Hr.
302	Pharmaceutical Chemistry-II(Organic-II) [Th.]	3
304	Pharmaceutical Chemistry-II (Organic-II) [Lab.]	1
306	Pharmaceutical Biochemistry-II [Th.]	3
308	Pharmaceutical Biochemistry-II [Lab.]	1
310	Pharmaceutics-II (Physical Pharmacy-II)[Th.]	3
312	Pharmaceutics-II (Physical Pharmacy-II)[Lab]	1
314	Physiology & Histology -II [Th.]	3
316	Physiology & Histology -II [Lab.]	1
318	Biostatistics	4
	Total Term Credit Hours	20
Second Year		
3rd Semester		
Course #	Title	Cr. Hr.
401	Pharmaceutics-III (Pharmaceutical Preparations-I) [Th.]	3
403	Pharmaceutics-III (Pharmaceutical Preparations-I) [Lab.]	1
405	Pharmacology & Therapeutics-I (General-I) [Th.]	3
407	Pharmacology & Therapeutics-I (General-I) [Lab.]	1
409	Pharmacognosy-I [Th.]	3
411	Pharmacognosy-I [Lab.]	1
413	Pharmaceutical Microbiology-I [Th.]	3

415	Pharmaceutical Microbiology-I [Lab.]	1
417	Pakistan Studies	3
	Total Term Credit Hours	19
Second Year 4th Semester		
Course #	Title	Cr. Hr.
402	Pharmaceutics-IV (Pharmaceutical Preparations-II) [Th.]	3
404	Pharmaceutics-IV (Pharmaceutical Preparations-II) [Lab.]	1
406	Pharmacology & Therapeutics-II (General-II) [Th.]	3
408	Pharmacology & Therapeutics-II (General-II) [Lab.]	1
410	Pharmacognosy-II [Th.]	3
412	Pharmacognosy-II [Lab.]	1
414	Pharmaceutical Microbiology-II [Th.]	3
416	Pharmaceutical Microbiology-II [Lab.]	1
418	Islamiyat	3
	Total Term Credit Hours	19
Third Year 5th Semester		
Course #	Title	Cr. Hr.
501	Pathology [Th.]	3
503	Pathology [Lab.]	1
505	Pharmacology & Therapeutics-III (Systemic Pharmacology-I) [Th.]	3
507	Pharmacology & Therapeutics-III (Systemic Pharmacology-I) [Lab.]	1
509	Pharmacognosy-III [Th.]	3
511	Pharmacognosy-III [Lab.]	1
513	Pharmaceutical Chemistry-III (Instrumentation-I) [Th.]	3
515	Pharmaceutical Chemistry-III (Instrumentation-I) [Lab.]	1
517	Pharmaceutics-V (Dispensing Pharmacy) [Th.]	2
519	Pharmaceutics-V (Dispensing Pharmacy) [lab.]	1
	Total Term Credit Hours	19
Third Year 6th Semester		
Course #	Title	Cr. Hr.
502	Computer & Its application in Pharmacy [Th.]	3
504	Computer & Its application in Pharmacy [Lab.]	1
506	Pharmacology & Therapeutics-IV (Systemic Pharmacology-I) [Th.]	3
508	Pharmacology & Therapeutics-IV (Systemic Pharmacology-I) [Lab.]	1
510	Pharmacognosy-IV [Th.]	3
512	Pharmacognosy-IV [Lab.]	1
514	Pharmaceutical Chemistry-IV (Instrumentation-II) [Th.]	3
516	Pharmaceutical Chemistry-IV (Instrumentation-II) [Lab.]	1
518	Pharmaceutics-VI (Community Pharmacy) [Th.]	4
	Total Term Credit Hours	20
Fourth Year 7th Semester		
Course #	Title	Cr. Hr.
601	Pharmaceutics-VII (Hospital Pharmacy-I) [Th.]	3
603	Pharmaceutics-VIII (Clinical Pharmacy-I) [Th.]	3
605	Pharmaceutics-VIII (Clinical Pharmacy-I) [Lab.]	1

607	Pharmaceutics-IX (Industrial Pharmacy-I) [Th.]	3
609	Pharmaceutics-IX (Industrial Pharmacy-I) [Lab.]	1
611	Pharmaceutics-X (Biopharmaceutics-I) [Th.]	3
613	Pharmaceutics-X (Biopharmaceutics-I) [Lab.]	1
615	Pharmaceutics-XI (Quality management-I) [Th.]	3
617	Pharmaceutics-XI (Quality management -I) [Lab.]	1
	Total Term Credit Hours	19
Fourth Year 8th Semester		
Course #	Title	Cr. Hr.
602	Pharmaceutics-VII (Hospital Pharmacy-II) [Th.]	3
604	Pharmaceutics-VIII (Clinical Pharmacy-II) [Th.]	3
606	Pharmaceutics-VIII (Clinical Pharmacy-II) [Lab.]	1
608	Pharmaceutics-IX (Industrial Pharmacy-II) [Th.]	3
610	Pharmaceutics-IX (Industrial Pharmacy-II) [Lab.]	1
612	Pharmaceutics-X (Biopharmaceutics-II) [Th.]	3
614	Pharmaceutics-X (Biopharmaceutics-II) [Lab.]	1
616	Pharmaceutics-XI (Quality management-II) [Th.]	3
618	Pharmaceutics-XI (Quality management -II) [Lab.]	1
	Total Term Credit Hours	19
Fifth Year 9th Semester		
Course #	Title	Credit
701	Pharmaceutical Chemistry-V (Medicinal-I) [Th.]	3
703	Pharmaceutical Chemistry-V (Medicinal-I) [Lab.]	1
705	Pharmaceutics-XVII (Clinical Pharmacy-III) [Th.]	3
707	Pharmaceutics-XVII (Clinical Pharmacy-III) [Lab.]	1
709	Pharmaceutics-XVIII (Pharmaceutical technology-I) [Th.]	3
711	Pharmaceutics-XVIII (Pharmaceutical technology-I) [lab.]	1
713	Pharmaceutics-XIX (Forensic Pharmacy-I) [Th.]	3
715	Pharmaceutics-XX (Pharmaceutical management & marketing-I) [Th.]	3
	Total Term Credit Hours	18
Fifth Year 10th Semester		
Course #	Title	Credit
702	Pharmaceutical Chemistry-V (Medicinal-II) [Th.]	3
704	Pharmaceutical Chemistry-V (Medicinal-II) [Lab.]	1
706	Pharmaceutics-XVII (Clinical Pharmacy-IV) [Th.]	3
708	Pharmaceutics-XVII (Clinical Pharmacy-IV) [Lab.]	1
710	Pharmaceutics-XVIII (Pharmaceutical technology-II) [Th.]	3
712	Pharmaceutics-XVIII (Pharmaceutical technology-II) [lab.]	1
714	Pharmaceutics-XIX (Forensic Pharmacy-I) [Th.]	3
716	Pharmaceutics-XX (Pharmaceutical management & marketing-I) [Th.]	3
	Total Term Credit Hours	18

The curriculum is consistent and supports the program's documented objectives.

Courses vs. Program Outcomes

Courses	Objectives			
	1	2	3	4
	Strongly	Moderately	Weakly	Uncertain
Math and Statistics		X		
Core courses	X			
Humanities and Social Sciences			X	
Technical / Instrumental Studies	X			
Computer Applications		X		
Islamic studies/ Pakistan studies				X

Standard 2-2: Theoretical background, problems analysis and solution design must be stressed within the program's core material.

Theoretical background, problems analysis and solution designs is stressed in program's core material.

Courses vs. Elements

Elements	Courses
Theoretical background	301,302,305,306,309,310,313,314,317,401,402,405,406,409,410,413,414,417,418,501,502,505,506,509,510,513,514,517,518,601,602,603,604,607,608,611,612,615,616,701,702,705,706,709,710,713,714,715,716
Problem analysis	318,319
Solution Design	303,304, 307,308,311,312,315,316403,404,407,408,411,412,415,416,503,504,507,508,511,512,515,516,519,605,606,609,610,613,614,617,618,703,704,707,708,711,712

Standard2-3: The curriculum must satisfy the mathematics and basic sciences requirements for the program as specified by the respective accreditation body

The curriculum satisfies the core requirements for the program as specified by the accreditation body.

Minimum requirements of credit hours for Pharm-D program

Pharm-D	Mathematics, Statistics and Computer Science	Pharmacy Subject		Humanities and Social Sciences
		Core	Elective	
	12	176	Nil	4

Standard 2-4: The curriculum must satisfy the major requirements for the program as specified by the respective accreditation body

The curriculum satisfies the core requirements for the program as specified by HEC. The curriculum in the program is fully satisfied the major requirements of the program.

Standard 2-5: The curriculum must satisfy humanities, social sciences, arts, ethical, professional and other discipline requirements for the program as specified by the respective accreditation body

The curriculum satisfies general education, arts, and professional and other discipline requirements for the program.

Pharm-D	Mathematics, Statistics and Computer Science	Pharmacy Subject		Humanities and Social Sciences
		Core	Elective	
	12	176	Nil	4

Standard 2-6: Information technology component of the curriculum must be Integrated throughout the program

IT contents of the Program

Course	IT Contents
502	Computer & Its application in Pharmacy [Th.]
504	Computer & Its application in Pharmacy [Lab.]

Standard 2-7: Oral and written communication skills of the students must be developed and applied in the program

Oral and written communication has been given importance in the program. Students are encouraged to speak in English during class and take part in curriculum and co-curriculum. Students’ skills in oral and written communication are satisfactory.

Oral and Written communication Skills

Courses for oral and written skills	Almost majority of core courses offer oral presentation and Written assignments.
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Criterion 3 – Laboratories and Computing Facilities

Standard- 3-1: (Lab manuals/documentation/instruction for experiments must be available and readily accessible to faculty and students.

Laboratory manuals/instructions for experiments are available and accessible to faculty and students. In each program faculty prepare lab manuals for required practical that make available to each student. Adequate laboratories and chemical /glass ware facilities are available and accessible to students, however basic needs like power/ water are insufficient to support practical and experiments. Laboratory/computing facilities shown in the following table, provided within the department:

- PHARMACY LABS

Lab information

Lab title	Pharmacy labs (Basic Medical Science Lab/ Pharmacognosy Lab/ Industrial Lab/ Microbiology Lab/ Pharmaceutics Lab/ Instrumentation Lab/ Pharm. Chemistry Lab/ Computer Lab)
Location and area	Academic Block –II Department of Pharmacy (2 ND Floor, Area:28× 28ft)
Objectives	To supplement students with professional practices and skills along with theory .To enable students to apply their skills in various fields of Pharmacy to cope different problems and situation.
Adequacy of Instructions	Students are adequately instructed about safety measures so that apparatus is kept away from misuse and damage students may not become victims of various ergonomics.
Courses Taught	Various courses where practical is compulsory is a must. The courses are effectively demonstrated with the help of Central Multimedia. We have seminar hall for conduction of workshops, seminars and multimedia presentations.
Available software	A Proposal shall be submitted to IT department SBBU for Pharmacy related licensed software from IT department of HC which include BERDY, NEPRALERT, DNP, Chem Draw, Pharmacy Inventory etc. Software for Hi-Fi instruments and Power lab are also needed.
Major Equipment	The Pharmacy lab & Pharmacy library are lacking computers, printers, scanners, camera, Photocopiers and other supporting furniture, Carpet, Curtains, split AC, De-humidifiers, Dedusters, and water dispensers. We need fixed multimedia too.
Safety regulations	Every student is aware of various ergonomic so that no injury is caused during practical's. But there is no safety apparatus like Fire Extinguisher.

Standard 3-2: There must be adequate support personal for instruction and maintaining the computing laboratories

There is adequate support personal for instructions and maintaining the laboratories. Support personal includes lab Supervisor and Lab Assistant. The following Table shows the Support personnel information for GPL lab within the department.

Support personnel information

Lab title	General Purpose Lab
Support personnel	Mr. Sherinzada, Mr. Farooq& Mr. Fazle-Rabi
Level of support	Good
Nature and extent of instructional support	Practical support of insignificant nature to large extent

Standard 3-3: The university computing infrastructure and facilities must be adequate to support programs objectives.

The university computing infrastructure and facilities for Pharmacy Department are inadequate to support program’s objectives. Computing infrastructure and facilities are provided by Department of Computer Science to offered programs. The following Table shows the total number of computer infrastructure and facilities provided within the department.

Computer Infrastructure & Facilities:

Apparatus	Currently Available	Needed
Total number of computers	25	25
Total number of printers	1	2
Total number of Multimedia	1	4
Electricity Generator	0	1
Total number of computer infrastructure and facilities	1	1

Criterion 4 – Student Support and Advising

The students are provided full support to complete the program in timely manner. The faculty members are available during office hours and students are encouraged to consult them in case they have any problem. Students are fully supported and advised in academic and extra-curricular activities by the faculty members of the department.

Standard 4.1: Courses must be offered with sufficient frequency and number for students to complete the program in a timely manner.

The course is offered regularly as per schedule. The degree consists of ten semester's two terms per year. The department offers core courses in first eight semesters of Pharm-D Program.

Standard 4-2: Courses in the major areas of study must be structured to ensure effective interaction between student, faculty and teacher assistants.

Every course offered in the program carry assignments, class presentations and practical work. Students have close interaction with their teachers for the guidance related to prepare their assignments and presentations. Each instructor adopts his way to interact with his students either in the class or during the office hours. However no proper procedure is adopted for student teacher interaction. Improvement needs in this area to fulfill the requirements.

Standard 4-3 Guidance on how to complete the program must be available to all students and access to academic advising must be available to make course decisions and careers choices.

An orientation class is conducted in the start of every semester. In the orientation class, concerned faculty members provide a document containing program mission, objectives, outcomes, curriculum design & organization, assessment-methodology and attendance criteria.

Similarly, the contents of the document having program mission, objectives, outcomes are available to all students of the concerned course in shape of module description. The same document is also shared with the concerned Chairman/ HoD, Office of the QEC and Director Academics. Professional counseling is usually carried out by Student Career Counseling Committee constituted for the purpose. The students can also consult with the chairman of the department or with the office of the registrar. A faculty member is assigned responsibility to discuss and coordinate with students in taking the right decision about their career.

Criterion 5 – Process Control

The execution of the major functions, such as student admission and registration, faculty recruitment, teaching, and graduation are documented and conducted in a well-organized manner. These processes are controlled, periodically reviewed and evaluated continuously.

Standard 5-1: The process by which students are admitted to the Program must be based on quantitative and qualitative criteria and clearly documented. The process must be periodically evaluated to ensure that it is meeting its objectives.

The admission criterion is set by the university and it is revised periodically. However, the admission of the students is the responsibility of the Director Academics office and the department is not directly involved in this process. The admission office gives admissions according to the criteria set by the university.

Admission Procedure:

- The admission notice for Pharm-D Program (5 years) is advertised in the national and local newspapers soon after the result declaration of FA/FSc of all Boards of Intermediate & Secondary Education of Khyber Pakhtunkhwa. All the eligible candidates fulfilling the requirement can apply for the courses offered by the university.
- The prospective applicants are asked to submit their admission forms, complete in all respects, within the prescribed period of time.
- After a thorough scrutiny and sorting, the names of eligible candidates are notified.
- A candidate may apply for three disciplines/subjects on a single form, but he/she must prioritize his/her options in the admission form.
- Once submitted, no changes/modifications are acceptable in the admission form.
- A candidate gets to lose his/her right for admission, if he/she provides false information in the admission form. Moreover, if the documents attached were found fake they would be considered guilty of gross misconduct and such act shall be highly condemned.
- The applicants having 2nd division are not eligible to apply for Pharm-D.

Criteria for Admission:

Students with F. Sc pre-medical or Equivalent with at least 1st division are eligible to apply for admission in Pharm-D. The selected candidates for admission must present their original documents before the committee on the announced date.

Documents to be submitted with admission form:

The following documents must be submitted with the completed application form:

1. Three recent color passport size photographs, duly attested
2. Attested photocopies of Detailed Marks Certificates (DMCs)
3. Attested photocopies of provisional /original certificates
4. Attested photocopy of character certificate
5. Attested photocopy of CNIC of the Applicant/Father/Guardian
6. Migration certificate, either board to university or university to university (for admitted candidates only)
7. Original undertaking on judicial stamp paper of RS. 20/- each, duly attested by political agent/DCO/ First class magistrate as PS specimen provided in the prospectus (for admitted candidates only)
8. Candidates applying against the reserved seats of disabled or Afghan students must also attach the relevant documents of eligibility with the form

Distribution of seats in each department is given as under:

Open merit	26
Reserved Seats:	
Female	02
Afghan	01
Disabled/Handicapped	01
Total:	30

Displaying of merit lists:

After the closing date of admission forms submission, the provisional merit lists are prepared on the basis of the following points:

- Percentage of marks obtained in FA/FSc
- In case of a tie in any merit position, SSC marks percentage is considered. In case of further tie, the age of the applicants is the determining criteria and the older candidate is to get preference.
- Separate merit list are prepared for the reserved seats of female, Afghan students and disabled following the above criteria.
- All the merit lists for admission are displayed on the main notice board of the university campus and on the university website <http://www.sbbu.edu.pk>

Interview of specified seats:

- Interview for the specified seats of Afghan students and disabled are held on the dates specified by the office of the Director Academics.
- All the applicants will ensure their presence and signature in the attendance sheet on the day of test/interview, even if they are on waiting list.
- The university fee is to be deposited in HBL Sheringal Branch, adjacent to university campus. After depositing the prescribed fee, the applicant must bring the original bank receipt to the account section of the university.
- In case a student wants to shift from one discipline to another within a certain time period, the fee and other charges shall be adjusted accordingly.
- Any reserved seat remaining unfilled, at the prescribed time, shall be filled through open merit.

Standard 5-2: The process by which students are registered in the program and monitoring of students progress to ensure timely completion of the program must be documented.

Each department shall send details of the admitted students to the controller of examinations on the prescribed proforma for registration within one month of the finalization of 1st term/part-1/previous admissions. The office of the controller of examinations shall maintain record of all the registered students in manner which shall contain the Name, Father's Name, Date of Birth, Permanent address, CNIC No. of the candidate, DMC of SSC and intermediate Examination, details of any other examination and result of every University Examination.

Academic Progress of Students:

In semester system, monitoring of student progress is evaluated by tests, surprise quizzes, assignments, class presentation, projects and final exam at the end of the semester.

Internal Evaluation:

Attendance + Class participation	=5 %
Class Presentation	=10 %
Home Assignment	=10 %
Test and Quizzes	=10 %
Mid Term	= 25 %
Final Term	= 40 %

In addition to the above criteria, the experts of the subject can add any addition modes of evaluation as required by the nature of the subject. Similarly, if required, a teacher can have 3 to 5 tests and 1 -3 Mid Term tests.

Standard 5-3: The process of recruiting and retaining highly qualified faculty members must be in place and clearly documented. Also processes and procedures for faculty evaluation

Recruitment of the faculty members is done on open merit by inviting the applications through newspapers. Written screening test is conducted for short listing. The candidates are required to appear before the selection board for interview. The names of selected candidates are recommended to syndicate for approval. After the approval, the registrar issues the offer letters for the appointment. Faculty members are made in accordance to the policy approved by HEC.

Faculty’s Recruitment, Training, and Evaluation

Faculty	Policy	Process
Recruitment	As per HEC guidelines	Through selection board (for permanent seats) and approval by the University Syndicate. Through HOD & VC (on contract basis)
Evaluation	As per HEC guidelines (Periodically)	Evaluation by students through Quality Enhancement Cell (QEC) and Self-assessment by the faculty. (At the end of each semester)
Promotion	As HEC criteria for faculty promotion and service statute of SBB University.	Through selection board and approval by the University Syndicate

The performance of the faculty members is monitored regularly and continuously by the Chairman/HoD of the department, and it is evaluated annually through ACRs. (Annual Confidential Report)

There was no systematic process before to evaluate the faculty members, now after establishment of QEC each faculty member is evaluated by the students via “Teacher Evaluation Questionnaire”.at the end of each semester.

Standard 5-4: The process and procedures used to ensure that teaching and delivery of course material to the students emphasize active learning and that course learning outcome is met. The process must be periodically evaluated to ensure that it is meeting the objectives.

Process to ensure teaching and delivery of course material:

- Time table is strictly followed by all faculty members. The Chairperson of the department frequently gets feedback from the students during the semester.

- Students are show their test and papers in the show off session after every test and quiz, this process in made sure by the HoDs. Students can see their papers marked by the teacher and view it.
- All the relevant materials (Tests, Assignments and Quizzes) of evaluation are submitted to the office of the HoD. It purpose to ensure that the grading is transparent
- Award list of all sessional and final term papers is submitted to the controller of examination and copies are left in the department.

In order to ensure that the teaching is effective a quarterly survey is conducted by the university QEC and the findings are communicated to the concerned faculty members. After completion of Survey Assessment Team meeting is called to assess the process and make implementation plan for the said department.

Standard 5-5: The process that ensures that graduates have completed the requirements of the program must be based on standards, effective and clearly documented procedures. This process must be periodically evaluated to ensure that it is meeting its objectives.

Currently there is no proper procedure to assure that whether the graduates meet the program requirements or not. This area needs concentration to develop this procedure. Plan required for this area. As no graduates are yet produced. So no proper procedures to assure that the graduates meet the program requirements or not. This area needs concentration to develop this procedure. Further planning is required for this area.

Faculty members of the Shaheed BB University are active in teaching and research activities and have the necessary technical depth to support the program. Teachers attempt to cover the curriculum adequately and in case of need hold extra classes.

Criterion 6 – Faculty

Standard 6-1: There must be enough full time faculty who are committed to the program to provide adequate coverage of the program areas / courses with continuity and stability. The interest of all faculty members must be sufficient to teach all courses, plan, modify and update courses. The majority must hold a PhD degree in the discipline

The interest and qualifications of faculty members are sufficient to plan, teach, modify, and update all offered courses and curriculum. Following are the brief details of the departments' faculty members.

Pen Picture of Faculty Members:

S.No	Name	Designation	Qualification
1	Dr. Aslam Khan	Assistant Professor	Ph.D
2	Hamid Afridi	Assistant Professor	M. Phil/ Ph.D Scholar
3	Shafiq Khan	Assistant Professor	M. Phil/Ph.D Scholar
4	Abidullah	Lecturer	Pharm-D/ M.Phil
5	Anwar UlHaq	Lecturer	Pharm-D/ M.Phil Scholar
6	Zulkamal	Lecturer	Pharm-D/ M.Phil Scholar
7	Haya Hussain	Lecturer	Pharm-D/ M.Phil Scholar
8	Shujat Ahmed	Lecturer	Pharm-D/ Ph.D Scholar
9	Asaf Khan	Lecturer	Pharm-D/ M.Phil Scholar

Standard 6-2: All faculty members must remain current in the discipline and sufficient time must be provided for scholarly activities and professional development. Also, effective programs for faculty development must be in place.

Faculty members of Shaheed BB University are considered updated in the discipline based on the following criteria:

- All teachers meet the HEC criteria for appointment in their respective cadre.
- Teachers generally participate in seminars, conferences at National /International levels.
- Teachers take interest in teaching and involve themselves in research activities
- A number of teacher training and refresher courses are conducted by QEC, HEC and other academic departments in the university.

Faculty development

Standards	Y/N
Faculty resume has been prepared in line with HEC	Yes
Full time faculty have sufficient time for scholarly activities and professional development	Yes
Any faculty development program is conducted	Yes
Faculty programs are evaluated	Yes
Evaluation results of faculty are used for improvements	Yes

Standard 6-3:All faculty members should be motivated and have job satisfaction to excel in their profession

Every year university awards (Best University Teacher Award) to faculty members for their outstanding performances. Outstanding Teachers are selected based on Students Teacher Evaluation Questioner, Peer Evaluation and HoD Evaluation. For job satisfaction the university ensures fair, timely selection, appointment/promotion as per HEC criteria.

Criterion 7 – Institutional Facilities

Institutional facilities, including library, class rooms and offices need improvement to support the objectives of the overall programs of the University. Class rooms and offices must be adequate to enable faculty to carry out their responsibilities.

Standard 7.1: The institution must have the infrastructure to support new trends such as e-learning.

Electronic library books and journals are not available for learning purpose.

- Insufficient facilities regarding the infrastructure to support new trends in learning.
- Insufficient library's technical collection of books.
- Recommended books, of the programs are available to the students, from the newly established independent library by department of Pharmacy. However, digital library and relevant journals are not available.
- However, this aspect needs to be strengthened for overall university departments.

Following facilities are available at the department at the University Campus:

Internet Facility

Limited internet facility is available for students.

Hostel Facility

Limited hostel facilities for boys are available.

Canteen

Separate girl's canteen is present for girl students within the campus.

Medical Facility

Though currently there is no medical practitioner in the BHU. It is run by a Pharmacist who is assisted by a dispenser.

Sports Facility

Directorate of sports is present in the campus

Faculty Offices

Offices with in adequate facilities are available for the faculty.

Standard 7.2: The library must possess an up-to-date technical collection relevant to the Program and must be adequately staffed with professional personnel.

The library space and books are not sufficient for university and is also not updated regularly according to the academic and research needs of the university staff. The university Central Library has very limited number of books and journals. It does not meet the standards of a university library. Departments itself has its independent library but is not registered to any on-line journal or database cataloging and abstracting engines.

Standard 7.3: Class room must be adequately equipped and offices must be adequate to enable faculty to carry out their responsibilities.

Majority of the class rooms are available without multimedia. Common rooms (Neither for male nor for female students) are also missing. The department lacks individual faculties offices mostly shared offices are available and class room facilities are also not sufficient. The university administration is trying to provide all the possible facilities to the departments and has been struggling hard for the up gradation of departments and establishing new faculties and institutes.

Criterion 8 – Institutional Support

Standard 8.1: There must be sufficient support and financial resources to attract and retain high quality faculty and provide the means for them to maintain competence as teachers and scholars.

In order to groom the faculty, university usually offers various trainings, workshops and seminars for faculty. The University is also trying to attract highly qualified faculty. All the financial matters of the overall department are managed by University finance Directorate and Registrar office with no involvement of the department. Last year, the university arranged 10 trainings for in service teachers both in main and sub campus at Chitral. These training were of various length duration ranging from 3 days to one month period.

Faculty Pay is as per the institution & universities in the public sectors.

Standard 8.2: There must be an adequate number of high quality graduate students, research assistants and Ph.D. students.

The university is newly established so there is no research assistant. There are currently only five PhDs in the university. Moreover they have no research allowance and get only 5000/- PhD allowance which is not equal to other universities. This area highly needs the concentration or focus of the authority. There is a single PhD in Department of Pharmacy; however the university aims to hire Professors/ Associate professors, through advertisement.

Standard 8.3: Financial resources must be provided to acquire and maintain Library holdings, laboratories and computing facilities.

All the financial matters of the overall department are managed by the university Finance Directorate and Registrar office with no involvement of the department.