



هيئة جودة التعليم والتدريب
Education & Training Quality Authority
KINGDOM OF BAHRAIN مملكة البحرين

Directorate of Higher Education Reviews Programme Review Report

**University of Bahrain
College of Health and Sport Sciences
Bachelor in Pharmacy
Kingdom of Bahrain**

Site Visit Date: 22 – 24 April 2024

HA119-C3-R119

Table of Contents

Acronyms	3
I. Introduction.....	4
II. The Programme's Profile	6
III. Judgement Summary.....	8
IV. Standards and Indicators	10
Standard 1.....	10
Standard 2.....	16
Standard 3.....	23
Standard 4.....	29
V. Conclusion	34

Acronyms

AHD	Allied Health Department
AACP	American Association of Colleges of Pharmacy
APR	Academic Programme Review
BQA	Education & Training Quality Authority
BPH	Bachelor in Pharmacy
CHSS	The College of Health and Sport Sciences
CILO	Course Intended Learning Outcome
CMS	Communication Management System
DHR	Directorate of Higher Education Reviews
HEC	Higher Education Council
HEA	UK Higher Education Academy
IT	Information Technology
LMS	Learning Management System
MIS	Management Information System
NQF	National Qualifications Framework
PAC	Program Advisory Committee
PEO	Programme Educational Objective
PILO	Programme Intended Learning Outcome
QA	Quality Assurance
QAAC	Quality Assurance and Accreditation Center
SAC	Students Advisory Committee
SIS	Student Information System
ToR	Terms of Reference
UILO	University Intended Learning Outcome
UTEL	Unit for Teaching Excellence and Leadership
UoB	University of Bahrain

I. Introduction

In keeping with its mandate, the Education & Training Quality Authority (BQA), through the Directorate of Higher Education Reviews (DHR), carries out two types of reviews that are complementary. These are: Institutional Reviews, where the whole institution is assessed; and the Academic Programme Reviews (APRs), where the quality of teaching, learning and academic standards are assessed in academic programmes within various colleges according to specific standards and indicators as reflected in its Framework.

Following the revision of the APR Framework at the end of Cycle 1 in accordance with the BQA procedure, the revised APR Framework (Cycle 2) was endorsed as per the Council of Ministers' Resolution No.17 of 2019. Thereof, in the academic year (2019-2020), the DHR commenced its second cycle of programme reviews.

The Cycle 2 APR Review Framework is based on four main Standards and 21 Indicators, which forms the basis of the APR Reports of the Higher Education Institutions (HEIs).

The **four** standards that are used to determine whether or not a programme meets international standards are as follows:

Standard 1: The Learning Programme

Standard 2: Efficiency of the Programme

Standard 3: Academic Standards of Students and Graduates

Standard 4: Effectiveness of Quality Management and Assurance

The Review Panel (hereinafter referred to as 'the Panel') decides whether each indicator, within a standard, is 'addressed', 'partially addressed' or 'not addressed'. From these judgements on the indicators, the Panel additionally determines whether each of the four standards is 'Satisfied' or 'Not Satisfied', thus leading to the programme's overall judgement, as shown in Table 1 below.

Table 1: Criteria for Judgements

Criteria	Judgement
All four Standards are satisfied	Confidence
Two or three Standards are satisfied, including Standard 1	Limited Confidence
One or no Standard is satisfied	No Confidence
All cases where Standard 1 is not satisfied	

The APR Review Report begins with providing the profile of the programme under review, followed by a brief outline of the judgement received for each indicator, standard, and the overall judgement.

The main section of the report is an analysis of the status of the programme, at the time of its actual review, in relation to the review standards, indicators and their underlying expectations.

The report ends with a Conclusion and a list of Appreciations and Recommendations.

II. The Programme's Profile

Institution Name*	University of Bahrain
College/ Department*	College of Health and Sport Sciences
Programme/ Qualification Title*	Bachelor in Pharmacy
Qualification Approval Number	Q21-025
NQF Level	8
Validity Period on NQF	5 years from the validation date
Number of Units*	41
NQF Credit	574
Programme Aims*	<p>A. Be prepared for undertaking the roles of Pharmacist in various pharmaceutical fields.</p> <p>B. Pursue higher education in various national and international professional certificates.</p> <p>C. Engage, legally, and ethically, in practices that serve to promote safe and effective use of medications in the society.</p> <p>D. Contribute to the development of the profession.</p> <p>E. Employ lifelong learning, critical thinking and problem-solving skills.</p>
Programme Intended Learning Outcomes*	<p>a) Integrate knowledge, skills and values to provide patient centered care.</p> <p>b) Adhere to the legal requirements of the Kingdom of Bahrain and apply professional code of ethics throughout the practice.</p> <p>c) Apply research tools to evaluate up-to date information related to drugs and health services and implement necessary changes.</p> <p>d) Contribute to patient care and wellbeing by providing education to facilitate improvement and promotion of health.</p> <p>e) Utilize information technology to enhance pharmaceutical practice.</p> <p>f) Decide on suitable drug distribution procedures to ascertain safety, accuracy and quality of supplied drugs.</p> <p>g) Apply management and leadership principles to enhance patient care and inter/intra-professional relationships with proper utilization of resources.</p> <p>h) Communicate the value of professional roles in society and have the potential to improve it.</p> <p>i) Be proactive in assessing self-learning needs and engage actively in</p>

	<p>promoting intellectual growth and continued professional and personal development.</p> <p>j) Utilize principles of critical thinking in problem solving to make informed and rational decisions.</p> <p>k) Participate actively in continuous quality improvement processes.</p>
--	---

* Mandatory fields

III. Judgement Summary

The Programme's Judgement: Confidence

Standard/ Indicator	Title	Judgement
Standard 1	The Learning Programme	Satisfied
Indicator 1.1	The Academic Planning Framework	Addressed
Indicator 1.2	Graduate Attributes & Intended Learning Outcomes	Addressed
Indicator 1.3	The Curriculum Content	Addressed
Indicator 1.4	Teaching and Learning	Addressed
Indicator 1.5	Assessment Arrangements	Addressed
Standard 2	Efficiency of the Programme	Satisfied
Indicator 2.1	Admitted Students	Addressed
Indicator 2.2	Academic Staff	Partially Addressed
Indicator 2.3	Physical and Material Resources	Partially Addressed
Indicator 2.4	Management Information Systems	Addressed
Indicator 2.5	Student Support	Addressed
Standard 3	Academic Standards of Students and Graduates	Satisfied
Indicator 3.1	Efficiency of the Assessment	Addressed
Indicator 3.2	Academic Integrity	Addressed
Indicator 3.3	Internal and External Moderation of Assessment	Partially Addressed
Indicator 3.4	Work-based Learning	Partially Addressed

Indicator 3.5	Capstone Project or Thesis/Dissertation Component	Addressed
Indicator 3.6	Achievements of the Graduates	Addressed
Standard 4	Effectiveness of Quality Management and Assurance	Satisfied
Indicator 4.1	Quality Assurance Management	Addressed
Indicator 4.2	Programme Management and Leadership	Addressed
Indicator 4.3	Annual and Periodic Review of the Programme	Partially Addressed
Indicator 4.4	Benchmarking and Surveys	Partially Addressed
Indicator 4.5	Relevance to Labour market and Societal Needs	Addressed

IV. Standards and Indicators

Standard 1

The Learning Programme

The programme demonstrates fitness for purpose in terms of mission, relevance, curriculum, pedagogy, intended learning outcomes and assessment.

Indicator 1.1: The Academic Planning Framework

There is a clear academic planning framework for the programme, reflected in clear aims which relate to the mission and strategic goals of the institution and the college.

Judgement: Addressed

- The Bachelor in Pharmacy programme (BPH) is delivered by the Allied Health Department (AHD) at the College of Health and Sport Sciences (CHSS) of the University of Bahrain (UoB). The programme was originally established as an associate degree that graduates pharmacy technicians to cater for the Ministry of Health's needs of pharmacy personnel. In 2014, the programme was subject to significant improvements by enhancing the programme to be at a Bachelor level to cater for the wider market needs of pharmacy in the kingdom of Bahrain. The programme follows a clear framework as per the university's Academic and Administrative Bylaws, Regulations for Offering and Developing Academic Programmes and Courses, the Quality Manual, and the Teaching and Learning Policy. Evidence of undertaking a planning process to ensure the programme's relevance and fitness for purpose was provided to the Panel, including minutes of meetings of the AHD, the minutes of meetings of the Programme Advisory Committee (PAC) and the Student Advisory Committee (SAC), in addition to the recent Market Survey analysis and the benchmarking report.
- The Self Evaluation Report (SER) states that the quality of the programme delivery and its academic standards are regularly reviewed, and potential risks are identified and acted upon. The Panel was provided with the risk register document for the academic year 2022-2023, which includes six potential risks and the proposed actions for their mitigation. Potential risks include, low number of academic staff, insufficient laboratories instruments, difficulties of maintaining partnerships with hospitals, and expired subscription for library resources. The risk register shows the percentage of achievement with regard to each potential risk, which ranges from 0% as in the risk of 'insufficient and expired supplies' to 80% as in the risk of 'inadequate number of classrooms'. The

interviewed faculty elaborated, during the interviews, on the CHSS and AHD efforts to follow-up the measures taken to address potential risks. Extra evidence was also provided on measures taken to address some of the risks, for example, recruitment requests of new faculty members and contract renewals requests were presented as evidence on addressing the risk of low number of faculty. The Panel is satisfied with the current arrangements and measures taken so far.

- The BPH programme was placed on the National Qualifications Framework (NQF) in June 2022 at level eight, with a total of 574 NQF credits. The title of the programme is indicative of the qualification's type and content, which reflects the practice of drug design and pharmaceutical care. The programme title is clearly stated on all programme documentations, the university website, the Programme Booklet, and the graduates' certificates.
- As per the programme specifications document, the BPH programme has five Programme Educational Objectives (PEOs), which have been last reviewed and revised on 24 April 2021. The SER states that the PEOs were developed based on feedback collected from various stakeholders including faculty, SAC, PAC, alumni, and students through planned meetings and surveys. The PEOs stated in the programme specifications document are clear and concise, however, the Panel noted discrepancy between some of the PEOs stated in the programme specifications document and the ones that are published on the programme website or mentioned in the SER. The PEOs are also written as learning outcomes that students should achieve. The Panel, hence, advises the College to ensure that the PEOs are correctly stated and published in all related documents as well as the programme webpage. The Panel also suggests revising the PEOs to ensure that they clearly describe the aims of the programme.
- The Panel learned during interviews with faculty and senior management that the programme team ensures that the programme contributes to the achievement of the college and the institution missions and strategic goals through the alignment of the programme mission, vision and PEOs with the CHSS and UoB mission and vision. This was confirmed by the Panel from the provided evidence.

Indicator 1.2: Graduate Attributes & Intended Learning Outcomes

Graduate attributes are clearly stated in terms of intended learning outcomes for the programme and for each course and these are appropriate for the level of the degree and meet the NQF requirements.

Judgement: Addressed

- As per the SER, graduate attributes are defined at the institutional level in the six University Intended Learning Outcomes (UILOs). These attributes are also embedded in the Programme Intended Learning Outcomes (PILOs) and the PEOs. The programme has 11 PILOs, which are stated in the programme specifications document and published on the university website. The PILOs are correctly mapped to the PEOs and UILOs.
- The Panel examined the PILOs and is of the view that they are measurable and appropriate for the programme's type and level. Evidence was provided on the PILOs being adopted from the American Association of Colleges of Pharmacy (AACP) educational outcomes. Evidence was also provided on the PILOs meeting the NQF requirements, focusing on key skills and ensuring measurability through a structured mapping process. Furthermore, the benchmarking report of 2018-2019 includes a benchmarking the PILOs with similar three regional programmes.
- The Panel examined samples of course specifications and noticed that the Course Intended Learning Outcomes (CILOs) are clear and appropriate for the course level and content. As per the SER, all CILOs have been tailored to correspond with the course NQF level. This was evidenced through the detailed mapping exercises as indicated in various documents provided to the Panel. Evidence for mapping of CILOs with PILOs was also provided to the Panel, which demonstrates appropriate mappings.

Indicator 1.3: The Curriculum Content

The curriculum is organised to provide academic progression of learning complexity guided by the NQF levels and credits, and it illustrates a balance between knowledge and skills, as well as theory and practice, and meets the norms and standards of the particular academic discipline.

Judgement: Addressed

- As per the SER, the curriculum of the programme underwent a major revision that resulted in the development of the study plan of 2015. However, the Panel noticed that a more recent study plan, dated 2018, is published on the university website. In the 2018 study plan, the programme is delivered over 4-year (8-semester) with 144 credits (574 NQF credits), including 20 hours of clinical training. The study plan of 2018 shows well-balanced and manageable student workload through structured credit distribution, a blend of theoretical and practical training, and progressive complexity in course content. The study plan also includes an appropriate list of course prerequisites and a suitable workload for students.
- As demonstrated in various evidence, the curriculum was updated in 2018 to meet professional expectations and requirements, based on feedback from faculty, committees, PAC and surveys. The Panel compared the study plan of 2015 to the one of 2018 and

noticed that several developments have been made on the 2018 study plan, including changing some prerequisites. However, since the last review of the study plan was conducted six years ago, the Panel recommends that the College should initiate the process for a wholistic review of the study plan to ensure its currency and compatibility with the current developments in the field.

- The Panel notes that, overall, the programme maintains an appropriate balance between theoretical knowledge and practical skills. The programme involves 20 clinical training credit hours with academic coursework, which aligns with professional standards. Based on the provided samples of course portfolios (e.g. PHAM 420, PHAM 422 and PHAM 420), the Panel is satisfied that the course contents cover all elements expected in terms of depth and breadth.
- Upon reviewing the textbooks and references listed in the course syllabi, the Panel confirmed that most of them are current, suitable and appropriate for their respective courses. While most textbooks are foundational and highly relevant, the Panel suggests incorporating a broader resource range to further enhance the curriculum.

Indicator 1.4: Teaching and Learning

The principles and methods used for teaching in the programme support the attainment of programme aims and intended learning outcomes.

Judgement: Addressed

- UoB has a Teaching and Learning Policy which highlights the key domains that encourage students to be active members in their learning. These are: designing of interactive learning materials and assessment, integration of technology enhanced learning, incorporating life-long learning skills, supporting research informed teaching and learning.
- Different instructional methodologies are utilized at different levels of courses such as didactic lectures, practical clinical training, and research-based learning. The SER states that the primary pedagogical strategy is student-centered learning. In addition to lectures, other methods such as group discussions, student presentations, assignments, laboratory reports, and case studies are being utilized. The BPH course syllabi outline the mode of delivery, assessment methods, and embedded elements of student-centered approach.
- The AHD effectively integrates e-learning into its teaching and learning methods by utilizing the Blackboard platform, which grants students access to course materials, assessments, learning activities, and discussion forums. Moreover, evidence for e-learning usage in the form of surveys and usage reports is also provided to the Panel. During the site visit, a demonstration for the usage of Blackboard was given.

- During interviews with senior management, creative and innovative aspects of students' learning were discussed, in addition to the approaches to provide students with exposure to professional practice. The Panel notes that UoB learning environment encourages students' participation in learning and promotes the concept of lifelong learning by encouraging all types of learning. The provided evidence shows that the work of some students was published in peer reviewed journals or presented in international conferences such as Dubai International Pharmaceuticals & Technologies Conference and the 1st Pharmaceutical Conference and Exhibition on Current and Future Perspectives of Pharmacy. The Panel appreciates the College approach to urge students to publish their work in peer reviewed journals as well as presenting posters and oral presentations in international conferences.
- Within the programme, there is a strong emphasis on research ethics, with faculty members actively encouraging students to uphold principles of honesty and integrity. In the capstone course 'Graduation Project' course (PHAM 430), instructors provide students with comprehensive information on the requirements of ethical conduct of research, including guidelines on research ethics and academic integrity. The research projects require ethical approval from the College Scientific Research Committee. In addition, the 'Research Methods' (SBS 320) course covers research methodology, types of research, sampling, and data collection.

Indicator 1.5: Assessment Arrangements

Suitable assessment arrangements, which include policies and procedures for assessing students' achievements, are in place and are known to all relevant stakeholders.

Judgement: Addressed

- The assessment framework at UoB includes policies, procedures, regulations, manuals and handbooks such as the Regulations of Study and Examination, the Moderation of Assessment Regulation, the Anti Plagiarism Policy, the Quality Manual, and the Teaching and Learning Policy, which are accessible *via* UoB's website, and disseminated to students through the Blackboard.
- There is a fair and stringent assessment in place, in addition to moderation procedures, which include pre- and post-assessment moderation of assessments. The provided evidence shows that the assignments, case studies, projects, and clinical practice assessments are marked with pre-defined rubrics, and they are also checked for plagiarism as per the Anti-Plagiarism Policy. The programme follows UoB's regulations regarding assessment feedback. The students are given feedback within two weeks of the assessment activity. The feedback is given individually and in groups, both verbally and written.

- The programme has established provisions for addressing academic misconduct and appeals by students. This is supported by the utilization of plagiarism detection tools such as SafeAssign, alongside detailed policies outlined in the Students' Rights and Duties Guide, the Study and Examination Regulations, and the Anti-Plagiarism Policy. Additionally, the programme has specific procedures for handling cases of academic misconduct and a structured process for students to appeal their grades, which ensure that students have clear avenues for addressing concerns related to academic integrity and assessment outcomes. The provided evidence shows examples of grade appeal, which are performed electronically *via* the Student Information System (SIS). Evidence was also provided on forming a committee composed of two faculty members from the programme to re-evaluate the marking of the final examination.

Standard 2

Efficiency of the Programme

The programme is efficient in terms of the admitted students, the use of available resources - staffing, infrastructure and student support.

Indicator 2.1: Admitted Students

There are clear admission requirements, which are appropriate for the level and type of the programme, ensuring equal opportunities for both genders, and the profile of admitted students matches the programme aims and available resources.

Judgement: Addressed

- The BPH programme follows UoB's admission requirements, which are available on the university website. As per the university requirements, applicants must possess a secondary school certificate or its equivalent, with a total minimum grade of 90% (science track only). In addition, applicants should pass the admission test and an interview. Evidence was provided on introducing a new interview form in 2022. The interviews with different stakeholders confirmed that the admission requirements are consistently implemented and ensure that appropriate students are accepted on an equal basis between females and males.
- The BPH programme provides structured access, progression, and credit transfer options guided by the university regulations. Remedial support measures for inadequately prepared students are in place. A foundation semester is provided to enhance students' competencies in English language and Chemistry to prepare them for the programme. Internal and external credit transfer is permissible according to clearly defined criteria set up in the Study and Examination Regulations. However, no such transfers have been undertaken in the last five years.
- As per the SER, admission criteria are regularly updated by the Committee for Admission and Supreme Admission at the university level. However, the Panel noticed that the benchmarking exercise conducted in 2018-2019 did not involve benchmarking of the admission criteria. Also, no evidence was provided on collecting feedback from relevant stakeholders about the admission criteria. Therefore, the Panel suggests revising the admission criteria in light of benchmarking and in consultation with stakeholders, in the next periodic review of the programme.

Indicator 2.2: Academic Staff

There are clear procedures for the recruitment, induction, appraisal, promotion, and professional development of academic staff, which ensure that staff members are fit-for-purpose and that help in staff retention.

Judgement: *Partially Addressed*

- As per the SER, UoB has adequate policies and regulations for the recruitment, induction, appraisal, and promotion of academic staff, which are consistently implemented in a transparent manner. There are proper induction and orientation programmes in place for newly appointed faculty members, in addition to the training workshops and programmes provided by the Unit for Teaching Excellence and Leadership (UTEL). There is also a rigorous appraisal process which has clear criteria and is supported with detailed performance rubrics. The appraisal of the faculty members is conducted annually and is taken into consideration for contract renewals. Academic Promotion Regulations are in place at the university level. Overall, the Panel is of the view that the applied policies and procedures are appropriate.
- Faculty members are required by the Academic Staff Bylaws to dedicate part of their workload to research activities. This is further emphasized in the College Strategy and UoB's Academic Promotion Criteria. The Scientific and Research Committee offers research capacity building seminars at the college level. The Panel is satisfied that there are policies and procedures that ensure the quality of scientific research carried out by the faculty members. However, the Panel noticed discrepancy in the cumulative scientific productivity of the faculty, as some produced more research than others. In the Annual SERs, lack of grants, financial support, infrastructure, equipment, and consumables were stated as deficiencies that impede the faculty from conducting research. Faculty engagement in committee work was also mentioned as an obstacle to conducting research. During interviews with faculty members, the Panel realized that faculty members are aware of the gaps in faculty development in specific areas, such as research opportunities, infrastructure, equipment, and consumables for laboratory-based research, as well as robust intramural and extramural research fundings. The Panel recommends that the College should set up an urgent action plan to provide the faculty with necessary facilities and funds as well as reducing their workload and any other actions needed to increase their research productivity.
- As indicated in the SER, the UoB Bylaws were last revised in June 2011, and as confirmed during interviews with senior management and faculty members, the teaching load of 12 hours is assigned to Assistant Professors and above, while Senior Lecturer/ Lecturer/ Instructors are assigned a teaching load of 15 hours. As per the UoB Bylaws, the extra workload is being compensated. However, it was not clear how the BPH programme at

UoB specifically manages the academic staff workload to ensure that it is appropriate and accommodates research and community engagement activities. The Panel suggests developing detailed workload guidelines at the college level, covering teaching, research, and community engagement, and providing flexibility for all staff. The Panel also suggests incorporating faculty feedback in the revision of workload distributions, which should be conducted on a regular basis.

- Since the academic year 2022-2023, the BPH programme has three full-time faculty members (one Professor and two Assistant Professors), in addition to two Lecturers, and three Teaching and Research Assistants. The Panel examined the submitted faculty data and is satisfied with the diverse qualifications and expertise. During interviews, the Panel learned that recruitment of faculty in specializations including Medicinal Chemistry and Pharmacotherapy is under process. Given that the number of students enrolled in the programme in the academic year 2022-2023 is 478, the Panel is of the view that the number of faculty needs to be increased. Hence, the Panel recommends that the College should urgently recruit additional senior professors in different specializations with clinical experience to cater for the programme needs, especially in terms of supervising students' clinical practice.
- UoB has policies and arrangements in place that support the professional development needs of its staff. Evidence was provided on active participation of academic staff in various professional development activities including capacity-building workshops organized by UTEL, seminars, conferences, and programmes accredited by UK Higher Education Academy (HEA). Professional development activities related to research are also in place, such as the research seminar on 'Key principles of writing for scientific research publication' conducted by the College. The Quality Assurance and Accreditation Center (QAAC) regularly takes feedback from faculty regarding their satisfaction with regard to services, research, and professional development needs. The Panel appreciates that the arrangements in place for faculty development are consistently implemented, monitored and evaluated.
- The SER clarifies that the retention rate of faculty in the BPH programme is high with only one faculty retired in the past five years. The Panel was provided with sufficient evidence of measures taken for ensuring staff retention, including competitive salary packages and extra steps for excellent and distinguished candidates. The Panel was also provided with statistics of faculty turnover and retention rate for the last three academic years (2021-2022 to 2023-2024), which show a rise in the faculty number and constant retention rate.

Indicator 2.3: Physical and Material Resources

Physical and material resources are adequate in number, space, style and equipment; these include classrooms, teaching halls, laboratories and other study spaces; Information Technology facilities, library and learning resources.

Judgement: Partially Addressed

- The Panel visited the CHSS premises during the site tour, which houses 23 classrooms equipped with data projectors, screens, whiteboards, and internet-connected computers. However, none of the classrooms is large enough to accommodate the entire batch of students (approximately 100 students/batch). There is a computer laboratory which is shared by different programmes and a pharmaceuticals wet laboratory which is exclusively dedicated for the BPH programme. The main laboratory space can accommodate 16 students per session. There are also two small rooms used for the equipment as well as storing chemicals. As noticed from interviews with students and the Senior Exit Surveys for the year 2021-2022, students are dissatisfied with the adequacy of the classrooms and the laboratories. This dissatisfaction seems consistent as evident from previous Senior Exit Surveys of the year 2019-2020. As per the SER, and interviews with the senior management during virtual site visit, these issues have already been considered in the risk register, and an action plan was prepared to resolve these issues. Therefore, the Panel recommends that the College should urgently address all areas related to the adequacy of the programme facilities including classrooms, laboratories, instruments, and equipment.
- The University Teaching and Learning Policy promotes Information Technology (IT) utilization in teaching and learning. Students are provided with Wi-Fi access, and email services. The Blackboard and Microsoft Teams platforms support students' learning and assessments. There are also two libraries at UoB, one at the AlSalmaniya campus named 'Ahmed Al Farsi Library' and the other at the UoB main campus. The Panel visited the library premises in the AlSalmaniya campus, which is of an appropriate size and seating capacity. The library resources, including electronic resources that serve the BPH programme, are adequate for the programme's needs. The Ahmed Al Farsi Library supports the students with extensive library hours and offers a variety of study rooms for group discussions and is equipped with computers for research activities. Moreover, there is an online library portal through which students can remotely access journals and other scientific literature.
- UoB has a formal mechanism to ensure the maintenance and adequacy of its resources, including facilities, equipment, technology, and infrastructure. This mechanism involves regular maintenance schedules overseen by the CHSS Facilities/Occupational Health and Safety Committee. Continuous evaluations and feedback from faculty and students

contribute to ongoing improvement efforts. However, the programme facilities need to be improved as stated earlier in this Indicator.

- During the site visit tour, the Panel noted that the UoB campus is equipped with clear health and safety instructions for all its academic and operational functions. The Health and Safety Committee at the CHSS forwards maintenance requests to the university's Maintenance Department for action. During the campus tour, the Panel noticed that some exit signages were deficient in the corridors. The Panel also noticed that the last modification to the submitted Laboratory Health and Safety Guidelines was in February 2020. Therefore, the Panel recommends that the College should ensure updating all signages at the college premises as well as the health and safety provisions.

Indicator 2.4: Management Information Systems

There are functioning management information and tracking systems that support the decision-making processes and evaluate the utilisation of laboratories, e-learning and e-resources, along with policies and procedures that ensure security of learners' records and accuracy of results.

Judgement: Addressed

- The University has a Student Information System (SIS) to manage all information related to academic programmes and students. During the site visit, the Panel was provided with a demonstration of the SIS system, which showcased its ability to facilitate informed decision-making and streamline operations. Further evidence was also provided on utilizing generated reports from SIS and the Learning Management System (LMS) in decision making at the department level. In addition, there is a Communication Management System (Docutrack), which is used for digital communication of cases where specific actions are required.
- UoB has implemented policies and procedures to ensure the security and accuracy of learners' records. Secure databases and limited access to authorized personnel are in place to protect sensitive information. Information regarding the issuance and replacement of graduation certificates can be found on the university's website. This ensures transparency and accessibility for all stakeholders. During the virtual site visit, the Panel confirmed that the awarded certificates and transcripts are accurate and issued in a timely manner.

Indicator 2.5: Student Support

There is appropriate student support available in terms of guidance, and care for students including students with special needs, newly admitted and transferred students, and students at risk of academic failure.

Judgement: Addressed

- Various student support measures such as induction day for newly admitted students, student service center, e-learning platform, student guide, and counseling support, etc., are offered by the College and the University. The library offers adequate support to students through services such as the reserve collection, information literacy training, and library induction. Robust technical support for the LMS is also provided to students and faculty members. Students and staff confirmed that the University provides comprehensive guidance and assistance to ensure the effective utilization of the LMS in addition to the support offered by the E-learning Center and the IT Center in providing seamless access to online platforms and assistance with IT resources.
- The SER describes the provision for career guidance and counseling support provided by the University. As a part of career guidance, the CHSS, in collaboration with the Business Incubator Center at UoB, conducts workshops for BPH students to empower them in making informed career choices and achieving success in the workforce. Career fairs are organised to facilitate student engagement with companies and institutions. During the site visit, students and alumni confirmed that the Career Guidance Office organizes regular career fairs and internship opportunities. As reflected in BPH statistics, the College efforts in career guidance have resulted in a relatively high rate of employability (see Indicator 3.6). Hence, the Panel appreciates the efforts exerted by the College and the Business Incubator Centre at UoB on the career guidance of students which resulted in a relatively high rate of employability.
- As per the SER, arrangements are in place for inducting newly admitted students. The Undergraduate Students Induction Day, organized by the Guidance and Counseling Department, introduces first-year students to the university's culture, values, academic procedures, and available services. The CHSS and the AHD also hold induction days to acquaint students with their respective programme offerings. In addition, comprehensive information regarding the regulations and services can be found on the university's website.
- Academic advising is provided to all students, with each student being assigned an academic advisor as per the Academic Advising Regulations. The SIS facilitates efficient communication between advisors and students. At the BPH programme, the ratio of students to faculty is high, thus, the number of students assigned to each individual faculty for academic advising is also high, which raises concerns about the appropriateness of the workload for effective academic advising (see Indicator 2.2).
- The AHD monitors and provides support to at-risk students (13 students), who are identified based on their Cumulative Grade Point Averages (CGPAs), through an online Academic Advising System. Adequate measures are also implemented to support

students with special needs and address the specific needs of women. Currently, no students with special needs are enrolled in the programme.

- UoB regularly assesses and improves its support services to meet the needs of its staff and students. Through continuous evaluation and gathering feedback, the University identifies areas for enhancement and makes the necessary adjustments. The conducted surveys show a high level of satisfaction with UoB support services.

Standard 3

Academic Standards of Students and Graduates

The students and graduates of the programme meet academic standards that are compatible with equivalent programmes in Bahrain, regionally and internationally.

Indicator 3.1: Efficiency of the Assessment

The assessment is effective and aligned with learning outcomes, to ensure attainment of the graduate attributes and academic standards of the programme.

Judgement: Addressed

- The assessment methods of the BPH programme adhere to the UoB Assessment Policy, which includes both summative and formative assessments. The assessment moderation processes ensure the validity and reliability of assessment methods as well as the appropriateness of academic standards. There are also continuous reviews and updates of course assessments, which ensure their validity and reliability. As per the SER, the assessments include theoretical, laboratory-based, as well as clinical-based assessments. The Panel notes that BPH assessments increase in complexity depending on the individual course CILOs and the level of the course.
- The BPH programme has a mechanism in place to ensure the alignment of assessments with the learning outcomes. The mappings of the assessments to CILOs and the CILOs to the PILOs are revised by the AHD Curriculum Committee and external moderators. The Panel was provided with the CILOs-PILOs assessment reports which were submitted along with e-portfolios as evidence. These reports show the attainment level of each CILO and PILO by the students, according to the results of the summative assessments in each course. Based on the attainment level of CILOs-PILOs, improvements are made at the programme and course levels. The moderation of assessments and course portfolios' audits are also used as mechanisms for monitoring and improving the assessments. The Panel confirmed from the interviews with different stakeholders that these mechanisms are in place.

Indicator 3.2: Academic Integrity

Academic integrity is ensured through the consistent implementation of relevant policies and procedures that deter plagiarism and other forms of academic misconduct (e.g. cheating, forging of results, and commissioning others to do the work).

Judgement: Addressed

- The BPH programme adheres to UoB's regulations on academic misconduct, cheating, and plagiarism. These regulations are presented in the booklets of Students Rights and Duties Guide, Study and Examinations Regulations, the Anti Plagiarism policy, Students Misconduct Bylaws and the University Regulation for Professional Conduct Violations. Additionally, faculty members explain to the students the academic integrity guidelines and encourage them to adhere to the Anti-Plagiarism Policy which is available on UoB's website.
- Evidence was provided on utilizing the Blackboard (SafeAssign) tool for detecting plagiarism in written projects. However, the acceptable percentage of similarity for written assignments is not explicitly mentioned in the provided documents. Students are permitted to resubmit their assignments if the percentage of similarity is high, but the number of allowed resubmissions is not specified. Therefore, the Panel recommends that the College should set up a clear percentage for the acceptable similarity in written assignments by students, and a cap for the permitted times of resubmission of students' work.
- Any detected case of plagiarism is dealt with by the AHD as per the UoB regulations. The Panel was informed of the actions taken for cases of misconduct during interviews with the senior management. Cases of misconduct or cheating during examinations, are referred to the Misconduct Committee to take the appropriate actions in line with UoB regulations.

Indicator 3.3: Internal and External Moderation of Assessment

There are mechanisms in place to measure the effectiveness of the programme's internal and external moderation systems for setting assessment instruments and grading students' achievements.

Judgement: Partially Addressed

- The BPH abides by the university's Assessment Moderation Policy, which includes clear provisions for the internal and external moderation of assessments. The Panel confirmed from the evidence provided that all major assessments including the two midterms and final examinations are internally moderated according to a course rolling plan. Internal moderators are selected in line with the Moderation of Assessment Regulation, which includes details on the selection process and criteria for selecting moderators. The submitted evidence includes samples of pre- and post-moderation forms with the course coordinators' responses. The feedback collected from the moderation forms is compiled and analyzed by the Moderation Committee, which develops an assessment improvement plan for the AHD.

- The BPH has recently initiated the process for the external moderation of assessment, as explained during the interviews with faculty and senior management. The AHD meeting minutes of 25 October 2023 show the approval of assigning two external moderators to moderate four BPH courses. The AHD moderation committee meeting minutes of 25 December and 31 December 2023 show discussion of the external moderation findings and preparation for the next cycle of external moderation. An external moderation report for the first semester of 2022-2023 dated March 2024 was provided to the Panel as evidence. Additionally, the Panel was provided with regulations for external moderation dated 2022.
- The SER clarifies the process of improving the programme delivery based on the analysis of moderation results; however, it does not explicate the mechanisms followed for the evaluation of the effectiveness of the moderation process. The Panel did not receive a clear clarification on this matter during the interviews. Thus, the Panel recommends that the College should develop and implement a mechanism for the evaluation of the moderation process effectiveness at the programme level.

Indicator 3.4: Work-based Learning

Where assessed work-based learning takes place, there is a policy and procedures to manage the process and its assessment, to assure that the learning experience is appropriate in terms of content and level for meeting the intended learning outcomes.

Judgement: *Partially Addressed*

- In the BPH programme, the work-based learning occurs during the students' clinical training at pharmacies and is referred to as 'Clinical Training/Practicum'. The Practicum consists of four clinical training courses, 'Pharmacy Practicum I' (PHAM 324); 'Pharmacy Practicum II' (PHAM 414); 'Pharmacy Practicum III' (PHAM 424); and 'Pharmacy Field Practice' (PHAM 432). Students can apply for these courses during their last two years of study. The four courses are mandatory major requirement courses that carry 20 credits hours, equivalent to 900 contact hours of clinical. The Panel is of the view that each practicum course has a set of appropriate pre-requisites. The practicum structure is also adequate and sufficient to ensure that students gain the necessary hands-on experience and skills to meet professional standards.
- To ensure an equivalent experience amongst all students, students are rotated at least in two training sites in each clinical course, and in six sites in the fourth course 'Pharmacy Field Practice' course (PHAM 432). Students are also trained in both government and private pharmacies. The BPH Programme Coordinator communicates with the heads of the training sites to accommodate students. The Panel learned that students are not trained in drug manufacturing companies, since there are no such companies in the Kingdom of

Bahrain. The Panel suggests providing students with videos and demo sessions on different levels of the Good Manufacturing Practices (GMP) and drugs manufacturing to improve their knowledge on drug manufacturing as part of their training.

- The SER states that the training is guided by the policies and regulations of UoB, including the Teaching and Learning Policy and Regulations of Study and Examination. From interviews, the Panel learned that students are provided with the relevant information through an orientation session including verbal instructions and warning about inappropriate practices during the clinical training. However, the SER did not refer to a specific policy for the management of clinical training or to a clear policy on the roles and responsibilities of different parties involved in the Practicum course. This was confirmed during the interviews with senior management. Therefore, the Panel recommends that the College should develop a clear procedure for the management of the clinical training that clearly defines the roles and responsibilities for each party involved in the clinical training.
- As per the SER and the four practicum course specifications, each clinical training course has clear CILOs that are mapped to the PILOs. Additionally, the clinical training assessment, presented in course specifications, includes different types of assessment that cover all the relevant BPH competencies that are mapped to the CILOs. The assessment of the clinical training consists of preceptor evaluation (10%), on spot assessment (20%), assignments (30%), OSCE and final examination (40%). The Panel is of the view that the assessment in the practicum courses is valid and comparable to similar practices in the region.
- According to the SER, the clinical training arrangements are consistently reviewed and updated. The effectiveness of the clinical training courses is evidenced by the overall attainment level of the PILOs over the past three years, which amounted to over 70%. Additionally, as stated in the SER, the informal feedback from the students regarding their preceptors and the training sites contributes to the evaluation of effectiveness of the learning in the training sites. Evidence was provided on improvements made to increase the number of training sites to accommodate the increasing number of students, and on adding a clinical seminar to 'Pharmacy Practicum III' course (PHAM 424) to enhance the student's exposure to more clinical cases. Students were also satisfied with the practicum courses, as shown in the surveys of the first and second semesters of the academic year 2021-2022.

Indicator 3.5: Capstone Project or Thesis/Dissertation Component

Where there is a capstone project or thesis/dissertation component, there are clear policies and procedures for supervision and evaluation which state the responsibilities and duties of both the supervisor and students, and there is a mechanism to monitor the related implementations and improvements.

Judgement: Addressed

- The BPH study plan of 2018 includes a 'Graduation Project' course (PHAM 430) in which the students must conduct a research project in their final semester. The course specifications document demonstrates that the CILOs are mapped to the PILOs, which confirms that the capstone project component contributes effectively to the achievement of the PILOs.
- The roles and responsibilities of the supervisors and students are clearly stated in the 'Senior Project Guidelines' of UoB and are communicated to all stakeholders. The progress of students in the graduation project is monitored by their supervisors through regular scheduled meetings, progress reports, and teamwork engagements. However, there is no evidence of monitoring students' satisfaction with the graduation project supervision process and resources. During the interviews with the senior management of the programme, the Panel learned this is an area for improvement that will be taken into consideration. Thus, the Panel recommends that the College should develop a mechanism to monitor students' satisfaction with the supervision process and the resources available to carry out their graduation project.
- The BPH programme has an appropriate mechanism for the assessment of the graduation project. At the end of the graduation project course, students submit a manuscript that is approved and signed by their respective supervisors, which accounts for 40% of the final grade of the course. This is followed by a group presentation of the project and submission of a poster. Two faculty members, not involved in supervision, assess the presentation and the poster and this accounts for 20% of the final course grade. The *viva* and the abstracts are allocated the rest 20% of the course grade.
- As per the SER, the 'Graduation Project' course is evaluated annually, and modifications are made accordingly. Examples on improvements were cited during interviews, such as rubrics that were developed and shared with the students to help them in conducting different components of the project. Samples of previous students' work were also shared with students to help them improving their project.

Indicator 3.6: Achievements of the Graduates

The achievements of the graduates are consonant with those achieved on equivalent programmes as expressed in their assessed work, rates of progression and first destinations.

Judgement: Addressed

- The aspired level of students' achievements is verified through the alignment of PILOs and PEOs to graduate attributes and the alignment of the assessments to CILOs and

PILOs. In the more advanced courses, students are assessed on how to create and innovate through using different types of assessment such as case analysis, graduation project, presentations, innovative projects and campaigns.

- The Panel observed a rise in the ratio of admitted to graduated students from the year 2019 to 2022. The BPH programme statistics from 2017 to 2023 indicate that the programme accepts around 100 students annually with dropout rate ranges from 3% to 14%. The statistics shows that 48% of the students from the 2018 cohort graduated, while 3% transferred to other specialities, 14% dropped out, and 34% retained. These rates are lower than other AHD programmes, and this is attributed, as described in the SER and confirmed during different interviews, to the complexity and nature of the courses within the programme.
- As stated in the SER, destinations for BPH graduates are mainly to public and private pharmacies. As per the survey conducted on the 2021 graduating batch, 53% of the graduates were employed in public sector and 36% in private sectors. Only 11% were unemployed. Statistics also shows that 22% of the graduates are employed within a month, 79% are employed in less than a year of their graduation. Additionally, 73% of the BPH graduates of the 2021 batch obtained their National Health Regulatory Authority Pharmacists' License from the first attempt which confirms that the academic standards are met. The Panel appreciates the College's efforts to prepare students for the market needs.
- The Panel examined the Employer's Survey of 2023 and noticed that only ten employers responded to the survey, from government and private pharmacies, in addition to the National Health Regulatory Authority. The results of the survey revealed general employers' satisfaction with the BPH programme. However, the employers mentioned the need for improving graduates' skills in the areas of pharmacy management, quality control and assurance, handling patients and pharmacovigilance. The Panel also examined the graduate survey report of the academic year 2023-2024, where 82 alumni responded to the survey. The results of the survey revealed general satisfaction and recommended starting a postgraduate programme. The Panel suggests that the College introduces mechanisms to increase the number of respondents to its employers' survey.

Standard 4

Effectiveness of Quality Management and Assurance

The arrangements in place for managing the programme, including quality assurance and continuous improvement, contribute to giving confidence in the programme.

Indicator 4.1: Quality Assurance Management

There is a clear quality assurance management system, in relation to the programme that ensures the institution's policies, procedures and regulations are applied effectively and consistently.

Judgement: Addressed

- At the institutional level, policies and regulations are in place such as the Quality Assurance Policy, the Quality Assurance and Enhancement Policy, and the Teaching and Learning Policy, which are appropriate for the needs of the programme. As per the Quality Assurance Policy and the provided evidence all policies are reviewed and updated every five years. Also, there are portals for communicating these policies to all stakeholders (e.g., QAAC webpage) and several printed documents in which the policies are published.
- The QAAC oversees the Quality Assurance (QA) system at the University and the implementation of the QA operational plans. At the college level, there is a Quality Assurance Office and a Quality Assurance Committee. The heads of these entities report to the Dean, who communicates with the Head of the Department (HoD). At the department level, there is also a Quality Assurance Committee that reports to the HoD and oversees all QA activities at the AHD ranging from monitoring courses, teaching and learning, assessments, and surveying stakeholders.
- Academics and support staff are kept updated on all QA related issues through their roles as members in the department Quality Assurance Committee, AHD Council, and BPH programme meetings. Furthermore, faculty members attend the QAAC workshops which update them on QA related academic practices. The Panel was satisfied to see that faculty are participating in various committees and this proves their awareness of QA processes within the programme. During interviews, academic and administrative staff showed an understanding of QA and their role in ensuring the effectiveness of provision.
- As stated in the Quality Assurance Policy and the Quality Assurance and Enhancement Policy, UoB monitors its QA management system through internal and external reviews. However, it was not clear to the Panel how and when the monitoring, evaluation and improvements on QA processes are implemented. Hence, the Panel recommends that the

University should ensure that QA processes and system are regularly evaluated and improved.

Indicator 4.2: Programme Management and Leadership

The programme is managed in a way that demonstrates effective and responsible leadership and there are clear lines of accountability.

Judgement: Addressed

- The CHSS has a suitable organizational structure for managing the programme. The reporting lines as shown in the organizational chart are clear and ensure effective communication and decision making. The HoD oversees the three programmes offered at AHD. Additionally, each programme has a coordinator who reports to the HoD. The academic and administrative responsibilities are distributed among various committees that report to the HoD. There are also clear terms of reference (ToR) for each committee at the College and department level, which are stated in the Committee ToRs document. The document includes committee memberships and their roles and responsibilities.
- The responsibility and custodianship of maintaining the academic standards of the programme are clearly stated at various levels, as per the Quality Assurance Policy. In addition, different councils' responsibilities are presented in the Regulations for Offering and Developing Academic Programmes and Courses document. This helps in identifying where different academic and administrative responsibilities lie, and who exactly is responsible for the custodianship of the academic standards of the programme at the university, college and department levels. This was confirmed by the Panel from interviews with administrative and academic staff. It was also clear from the interviews that the AHD has effective and responsible leadership and the BPH programme is appropriately managed.

Indicator 4.3: Annual and Periodic Review of the Programme

There are arrangements for annual internal evaluation and periodic reviews of the programme that incorporate both internal and external feedback and mechanisms are in place to implement recommendations for improvement.

Judgement: Partially Addressed

- UoB has an Annual and Periodic Programme Review Policy that outlines the purpose, scope, principles of reviews and details each type of programme evaluation. In accordance with the Policy, the BPH programme is annually reviewed and evaluated for improvement. The Annual SERs of the programme is based on a range of different data

sources, such as: course details; course evaluation results; the feedback received from different committees including PAC and SAC; and survey results. The Panel examined the last five Annual SERs for the academic years from 2018-2019 to 2022-2023 and found that they are comprehensive and include recommendations for improvement that were translated into action plans. The programme monitors the implementation of the improvement plans as evidenced in the provided sample progress report for the year 2022-2023.

- As per the Annual and Periodic Programme Review Policy, the periodic review of the programmes is conducted every 4-6 years. Evidence was provided on conducting two internal audits, one in the academic year 2018-2019, and the other in the academic year 2022-2023. Both are conducted by the QAAC and resulted in audit reports. The Panel examined both audit reports and noticed that the focus, scope and purpose of the audit reports are different than what is expected in a periodic review of the programme. Therefore, the Panel recommends that the College should ensure that a comprehensive periodic review of the programme is regularly conducted with its results utilized in improving programme delivery.

Indicator 4.4: Benchmarking and Surveys

Benchmarking studies and the structured comments collected from stakeholders' surveys are analysed and the outcomes are used to inform decisions on programmes and are made available to the stakeholders.

Judgement: Partially Addressed

- The Benchmarking Policy of UoB provides the framework for different programmes at the University to undertake benchmarking. In accordance with this Policy, the BPH programme went through a benchmarking exercise in 2018-2019 with similar programmes in three regional universities. However, the Panel noticed that the benchmarking study was limited to comparing only three aspects of the programme, these are structure, curriculum, and learning outcomes. The main findings were to consider extending the programme duration to five years instead of four, and to consider reviewing the time and duration of clinical training.
- As per the SER, PAC and SAC were briefed about the results of the benchmarking. However, it was not clear to the Panel how the programme benefitted from the benchmarking study, especially that the latest updates on the study plan and the learning outcomes were conducted in 2018. No evidence was provided neither on implementing the recommendations stated in the benchmarking findings nor on including the benchmarking results in the Annual SERs. Therefore, the Panel recommends that the College should ensure that comprehensive benchmarking is conducted in a regular

manner, and that its outcomes are utilized to inform decision making with the purpose of improving the programme.

- According to the QAAC guidelines, the BPH programme implements a formal mechanism for collecting structured comments from both internal and external stakeholders, including alumni surveys, student exit surveys, market needs surveys, and employer surveys. Samples of course evaluation results and the analysis of the students, alumni and employers' surveys were provided to the Panel. Feedback collected from various stakeholders is analyzed and integrated into the Annual SERs. Evidence was also provided on implementing some of the suggested changes such as increasing training opportunities in pharmaceutical industries and hospital wards, establishing a Preceptorship Programme to standardize clinical training across various sites, and developing student's leadership skills and adaptability to meet market needs. These improvements have been documented in the Annual SERs and followed up for successful implementation by the Department.
- The Panel learned from various interviews that internal stakeholders, faculty and staff, are informed of the outcomes of the surveys either from the HoD or through meeting minutes of different committees. In addition, PAC members are informed of changes made based on their feedback during PAC meetings. Overall, the analysis of various surveys demonstrates a high satisfaction rate with the BPH programme.

Indicator 4.5: Relevance to Labour market and Societal Needs

The programme has a functioning advisory board and there is continuous scoping of the labour market and the national and societal needs, where appropriate for the programme type, to ensure the relevancy and currency of the programme.

Judgement: Addressed

- The BPH programme has a functioning Advisory Board that consists of PAC and SAC. Both PAC and SAC have clear ToRs. The Panel was provided with two meeting minutes of the PAC dated 26 September 2019 and 13 March 2023. A report on the meeting of the SAC members of all programmes offered by the CHSS with the Dean dated 20 December 2018 and an improvement plan based on this meeting were provided to the Panel. Both PAC and SAC members attend a joint meeting once every year. The meeting minutes of their second joint meeting of 13 March 2023 was provided as evidence. The PAC comprises members from academia, industry experts, alumni and various pharmacy sectors in Bahrain. As evident in the PAC meeting minutes, feedback is sought from the PAC to improve the curriculum.

- The mechanisms that are in place to collect data about the quality of the programme and whether graduates meet labour market needs are mainly satisfaction surveys and feedback from the PAC. To ensure that the BPH programme is relevant to the labour market needs and up to date, a Market Survey Report was conducted in April 2021. The outcomes of PAC and SAC meetings, various surveys, and the market study analyses are integrated into the the BPH Annual SERs. This is followed by setting up improvement plans, that are monitored by the QA team at the CHSS. The Panel is satisfied with the current arrangements.

V. Conclusion

Taking into account the institution's own self-evaluation report, the evidence gathered from the interviews and documentation made available during the virtual site visit, the Panel draws the following conclusion in accordance with the DHR/BQA *Academic Programme Reviews (Cycle 2) Handbook, 2020*:

There is Confidence in the Bachelor in Pharmacy of the College of Health and Sport Sciences offered by the University of Bahrain.

In coming to its conclusion regarding the four Standards, the Panel notes, *with appreciation*, the following:

1. The College approach to urge students to publish their work in peer reviewed journals as well as presenting posters and oral presentations in international conferences.
2. The arrangements in place for faculty development are consistently implemented, monitored and evaluated.
3. The efforts exerted by the College and the Business Incubator Center at University of Bahrain on career guidance of students are notable and resulted in a relatively high rate of employability.
4. The College's efforts to prepare students for the market needs are notable.

In terms of improvement, the Panel recommends that the University of Bahrain and the College of Health and Sport Sciences should:

1. Initiate the process for a wholistic review of the study plan to ensure its currency and compatibility with the current developments in the field.
2. Set an urgent action plan to provide the faculty with necessary facilities and funds as well as reducing their workload and any other actions needed to increase their research productivity.
3. Urgently recruit additional senior professors in different specializations with clinical experience to cater for the programme needs, especially in terms of supervising students' clinical practice
4. Urgently address all areas related to the adequacy of the programme facilities including classrooms, laboratories, instruments, and equipment.
5. Ensure updating all signages at the college premises as well as the health and safety provisions.

6. Set up a clear percentage for the acceptable similarity in written assignments by students, and a cap for the permitted times of resubmission of students' work.
7. Develop and implement a mechanism for the evaluation of the moderation process effectiveness at the programme level.
8. Develop a clear procedure for the management of the clinical training that clearly defines the roles and responsibilities for each party involved in the clinical training.
9. Develop a mechanism to monitor students' satisfaction with the supervision process and the resources available to carry out their graduation project.
10. Ensure that quality assurance processes and system are regularly evaluated and improved.
11. Ensure that a comprehensive periodic review of the programme is regularly conducted with its results utilized in improving programme delivery.
12. Ensure that comprehensive benchmarking is conducted in a regular manner, and that its outcomes are utilized to inform decision making with the purpose of improving the programme.