



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 Science
Master of Science in Nutrition and Dietetics
Kingdom of Bahrain**

Site Visit Date: 21 - 23 November 2022

HA060-C3-R060

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Acronyms

ACEND	Accreditation Council for Education in Nutrition and Dietetics
AfN	Association for Nutrition
APR	Academic Programme Review
ASER	Annual Self-Evaluation Report
BQA	Education & Training Quality Authority
CILO	Course Intended Learning Outcome
CoS	College of Science
CPD	Continuing Professional Development
DHR	Directorate of Higher Education Reviews
DOB	Department of Biology
HEC	Higher Education Council
IT	Information Technology
ITC	Information Technology Centre
MND	Master of Science in Nutrition and Dietetics
NQF	National Qualifications Framework
PAC	Programme Advisory Committee
PEO	Programme Educational Objective
PILO	Programme Intended Learning Outcome
QA	Quality Assurance
SER	Self-Evaluation Report
SIS	Student Information System
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 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 judgments 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 judgment, 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 judgment 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 Science
Programme/ Qualification Title*	Master of Science in Nutrition and Dietetics
Qualification Approval Number	
NQF Level	
Validity Period on NQF	
Number of Units*	13
NQF Credit	
Programme Aims*	<ol style="list-style-type: none"> 1. Provide the student with a core body of instruction/knowledge in nutrition and dietetics. 2. Provide the student with a knowledge and understanding of human nutrition beyond that offered at the undergraduate level. 3. Create a learning environment that is informed by the academic/ research background and professional experience of the staff. 4. Provide a firm foundation in research skills and techniques. 5. Enable the student to utilize research methodologies to advance knowledge by creating and testing hypotheses through original or library-based research. 6. Develop verbal and written communication skills. 7. Enable the student to assimilate and communicate findings of scientific research. 8. Enable the student to enter a broad range of professions, fields and careers, including research, nutrition, food industry and food systems, and the business of health clubs and health promotion. 9. Enable the student to offer science-based opinions on nutrition issues.

<p>Programme Intended Learning Outcomes*</p>	<ul style="list-style-type: none"> a. Implement advanced knowledge in areas of nutrition and dietetics. b. Develop ideas in addressing and solving problems. c. Analyze nutritional problems and communicate the results. d. Evaluate specific knowledge and current research in nutrition and dietetics. e. Plan an original research in nutrition and dietetics. f. Demonstrate effective communication skills. g. Integrate intellectual, cognitive and transferable skills in the field of nutrition and dietetics. h. Develop independence and autonomy in life-long learning.
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* Mandatory fields

III. Judgment Summary

**The Programme's Judgment:
No Confidence**

Standard/ Indicator	Title	Judgement
Standard 1	The Learning Programme	Not Satisfied
Indicator 1.1	The Academic Planning Framework	Partially Addressed
Indicator 1.2	Graduate Attributes & Intended Learning Outcomes	Addressed
Indicator 1.3	The Curriculum Content	Not Addressed
Indicator 1.4	Teaching and Learning	Partially Addressed
Indicator 1.5	Assessment Arrangements	Addressed
Standard 2	Efficiency of the Programme	Not Satisfied
Indicator 2.1	Admitted Students	Addressed
Indicator 2.2	Academic Staff	Partially Addressed
Indicator 2.3	Physical and Material Resources	Not Addressed
Indicator 2.4	Management Information Systems	Addressed
Indicator 2.5	Student Support	Addressed
Standard 3	Academic Standards of Students and Graduates	Not Satisfied
Indicator 3.1	Efficiency of the Assessment	Not Addressed
Indicator 3.2	Academic Integrity	Partially Addressed
Indicator 3.3	Internal and External Moderation of Assessment	Not Addressed
Indicator 3.4	Work-based Learning	Not Addressed
Indicator 3.5	Capstone Project or Thesis/Dissertation Component	Partially Addressed

Indicator 3.6	Achievements of the Graduates	Not Addressed
Standard 4	Effectiveness of Quality Management and Assurance	Not Satisfied
Indicator 4.1	Quality Assurance Management	Partially Addressed
Indicator 4.2	Programme Management and Leadership	Partially Addressed
Indicator 4.3	Annual and Periodic Review of the Programme	Not Addressed
Indicator 4.4	Benchmarking and Surveys	Partially Addressed
Indicator 4.5	Relevance to Labour Market and Societal Needs	Not 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.

Judgment: *Partially Addressed*

- The University of Bahrain (UoB) has policies and procedures in place, which define the structure, requirement, delivery, assessments and outcomes of academic programmes. The Master of Science in Nutrition and Dietetics (MND) programme was designed in accordance with the UoB related policies and regulations covering the higher diploma and graduate programmes. The programme was first offered in the first semester of the academic year 2015-2016. The Panel is of the view that the programme would benefit from alignment with local licensing requirement such as the healthcare professional licensing standards 'Allied Healthcare Professional Report, Bahrain (2017)'. The Panel also suggests benchmarking the programme with international standards such as the Association for Nutrition (AfN) and the Accreditation Council for Education in Nutrition and Dietetics (ACEND).
- Although an undated risk register is presented which identifies staffing and laboratory resources as the highest risks, the Panel confirmed from interviews and the Self-Evaluation Report (SER) that there are no policies or assigned committee responsible to review risk assessments and progress in mitigation. The register does not identify low student enrolment as a risk. Thus, the Panel recommends that the University should develop policy and process for programme risk management and suggests that this includes oversight at college level. The Panel also recommends that the College should review and revise its MND programme risk assessment to accurately define the risks faced by the programme and actions for their mitigation.
- Although the programme is not placed on the National Qualification Framework (NQF), the Panel was provided with evidence that the programme adheres to the NQF

qualification design requirements as well as the related mapping and confirmation processes. The programme qualification's title is concise and is accurately documented in the submitted evidence. However, the inclusion of Dietetics in the programme title is misaligned with international professional expectations of similarly titled programmes. Including Dietetics in the title should be reflected in substantial experiential clinical training and extensive coverage of dietetics in the related courses, which is not the case in the MND programme. Hence, the Panel recommends that the College should review the whole programme to ensure that its title is indicative of the qualification's type and content including experiential training needs, and its relationship to National Health Regulatory Authority licensure requirements.

- The aims of the programme are clearly and appropriately stated in the form of Programme Educational Objectives (PEOs). However, the SER does not address how the PEOs contributes to the achievement of the college and institution strategic goals. The Panel recommends that the College should identify and review how the MND programme contributes to the achievement of the college and institution strategic goals.

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.

Judgment: Addressed

- As detailed in the Programme Specification, UoB has defined generic graduate attributes. The Programme Specification includes a mapping of the Programme Intended Learning Outcomes (PILOs) to the PEOs and the institutional-level graduate attributes, demonstrating how the latter have been attained by graduates of the programme.
- The PILOs are clearly defined, appropriately written, linked to the programme aims, and mapped to University Intended Learning Outcomes (UILOs). The Panel examined the Course Intended Learning Outcomes (CILOs) and is of the view that these are appropriate to the level of the courses and are appropriately mapped to PILOs. The 'Thesis' (BIONU 599) course has clear CILOs, which are consistent with the PILOs. Evidence was provided on benchmarking PILOs and CILOs against comparable programmes (see Indicator 4.4).

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.

Judgment: *Not Addressed*

- The course sequence, progression and workload are appropriate over a two-year period, but there are deficits in the clinical experience and laboratory-based practices. Access was granted only to a minority of the requested course portfolios. The Panel examined the course portfolios provided and noted that some, for example, do not include teaching materials. The issue of ensuring that courses are delivered in their entirety was discussed with the faculty, who confirmed that this should be undertaken through portfolio review by the Departmental Quality Assurance Committee. The Panel concludes from the incomplete nature of the portfolios that this process is not effective. Therefore, the Panel recommends that the College should revise the mechanisms used to ensure the completeness of course portfolios and that the entire course syllabi are covered.
- The course textbooks and materials were discussed with faculty during the virtual interviews. However, due to lack of evidence provided, the Panel is uncertain whether the textbooks and materials are sufficient and up to date for all the courses. During the library visit, the Panel found no nutrition textbooks available in the library shelves. The Panel recommends that the College should add relevant nutrition textbooks to the library and audit the currency of the syllabus reading lists.
- The MND courses focus mainly on the theoretical elements, and there is a clear deficiency in the practical and laboratory exposure. The programme's curriculum ensures the breadth and depth of some requisite knowledge and skills needed for nutritionists but only for a narrow range of the topics expected of dietitians. Due to lack of evidence provided on the course portfolios, the Panel was not able to check whether some of required components such as, governance of nutrition and dietetics practice, fundamentals of public policy and human behavior, psychology, sociology, are covered in the curriculum or in the course content. Furthermore, there are some topics such as counseling that would be expected to be core but are elective. Also, if the focus of the programme is on human nutrition and dietetics, nutrigenomics should be included. The Panel was provided with the benchmarking report, and the departmental Curriculum Committee meeting minutes with some suggested changes on the curriculum, however, it does not identify the deficiencies discussed above. Thus, the Panel recommends that the College should revise the curriculum to ensure the balance between theory and practice and between depth and breadth.
- The programme has a structure that ensures that the research-related intended learning outcomes are covered. Training students on work ethics was identified in the SER as an area for improvement; however, no evidence was provided on addressing this issue. Ethical conduct of scientific research was not included as a course or as a tuition in the course specifications. Therefore, the Panel recommends that the College should revise the curriculum to include tuition on ethical frameworks and ensures that students receive

training in the principles and ethics of scientific research in their specialization as well as in-depth research training by supervisors with academic and research experience in the academic specialization.

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.

Judgment: Partially Addressed

- UoB has in place Teaching and Learning Policy (dated 2018) that places a requirement for a range of constructive approaches to teaching and learning that is student-centered, technology-enhanced, and research-informed. In view of the brevity of the policy and the absence of comprehensive guidance on teaching and learning within the policy or subsidiary documents, the Panel advises the UoB to develop more specific guidance on the intended approaches to teaching and learning.
- Teaching and learning methods stated in the programme specification are in line with the university's teaching philosophy, informed by current research findings and enable the attainment of the intended learning outcomes. The faculty used a variety of teaching and learning methodologies including on-line case studies. A student guide to e-learning is available, but there is no e-learning policy *per se*. The Panel suggests that the University develop an e-learning policy.
- The Teaching and Learning Policy emphasizes the importance of interactive teaching and learning, and states that the student should be empowered to take responsibility for their lifelong learning skills. Some of the MND courses have practical/project components that support lifelong learning as they have strong collaborations with hospitals in Bahrain. During the interviews with students, alumni, and faculty, it was clear that research-informed learning is encouraged. Nonetheless, the Panel recommends that the College should substantially increase the laboratory skills of the MND students.

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.

Judgment: Addressed

- The Regulations of Study and Examinations, Assessment Moderation Policy, and Teaching and Learning Policy are published and can be accessed through the website. The

programme has a plan for on-going assessment of students' attainment of core knowledge and competencies. Formative and summative assessments are carried out using a variety of assessment categories and defined grading criteria (rubrics and key answers).

- Formative and summative evaluations, presentations, and laboratory work are all used to measure practical skills. Students receive feedback on examinations, research projects and their personal and learning needs are addressed regularly. This was further confirmed by the students and alumni during the interviews, who have also confirmed that the process is fair and rigour. Oversight of the assessment process is maintained at departmental level by the Curriculum Committee, Quality Assurance Committee and Moderation Committee.
- UoB has clear policies and procedures addressing student misconduct, grievance and appeals. Students are clearly informed about the policies through the website and student guide. Anti-Plagiarism Policy and Public Conduct Violation Regulations are clear and publicly available. No cases of academic misconduct or appeal has been recorded, as clarified during the virtual site visit interviews.
- There has been an increasing trend internationally for a competency- or entrustable professional activity-based approach to assessment of skills development for health programmes leading to practitioner status. There is limited evidence of such an approach in the SER, although the internship assessment form does include assessment of very broadly phrased competencies. This was discussed during the virtual interviews with the senior management and the faculty who acknowledged that competency-based assessment should be explored, but that it has not been adopted in the programme. The Panel recommends that the College should define expected competencies and/or entrustable professional activities expected of MND graduates and develops assessment of students' attainment of these.

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.

Judgment: Addressed

- The MND programme follows the general admission criteria for UoB as outlined in the Regulations of Study and Examinations. In addition, the programme admission criteria include minimum Cumulative Grade Point Average of 2.67 in relevant fields and IELTS 6 or equivalent. The College does not identify any specific remedial courses available to the MND students.
- The admission criteria are communicated to stakeholders through the UoB website and the College Booklet. However, there are inconsistencies in information across these. The Panel suggests that the College review the admissions criteria for consistency and accuracy where they are made public. Although most students are female, there is no evidence to suggest gender discrimination. Admissions to the MND programme is low and no new students were admitted in the academic years 2019-2020 and 2020-2021. The Panel advises the College to investigate the reasons for the low admission to the programme and take appropriate remedial actions.
- The admission criteria were last updated in December 2018. However, the Panel was provided with evidence on approving the Benchmarking Report in May 2022, which includes benchmarking the current admission criteria against six universities in the United Kingdom, Ireland and Australia. The Panel is of the view that admission criteria are appropriate and consistent with local and international academic standards.

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.

Judgment: *Partially Addressed*

- Procedures for the recruitment, induction, appraisal, and promotion of academic staff are documented in the Academic and Administrative Bylaws, Scholarship Bylaws and Quality Manual. As confirmed to the Panel by a recently appointed faculty member, new recruits in the Department undergo induction training at the university and college levels. The Panel is of the view that the procedures are consistently implemented in a transparent manner.
- The Department does not have an identified research strategy, though research themes are identified. The Panel advises the College to develop its research strategy and identify its alignment with the research goals of the College and strategic plan of the University.
- The SER provides that full-time faculty work a maximum of 40 hours per week, in accordance with UoB Faculty Bylaws with PhD holders completing up to 12 credit or 15 class hours and non-PhD holders 15 credits or 18 class hours. However, only three of the department faculty are qualified to deliver the MND programme. All of them are delivering the undergraduate Biology programme as well, and thus are currently exceed the maximum working load set by the University (average 20 contact hours per week, excluding project and thesis supervision). The three faculty members have appropriate academic qualifications; however, their expertise does not cover all areas of nutrition and dietetics. The Panel recommends that the College should identify the required expertise for the MND programme and develop faculty hiring plan based on this and expedite its implementation.
- A list of research publications of 2020 by the faculty was provided but this is incomplete and uncollated. The Panel discussed the special needs of women with faculty and staff and is satisfied that reasonable accommodations are made to meet their needs. Professional development is described in the SER and evidence on conducting a range of workshops was provided to the Panel. However, the SER does not outline how training is monitored and evaluated. The Panel suggests that the monitoring and evaluation of professional development be more formalized.
- The SER states that efforts are being made to mitigate the loss of faculty due to retirement by recruiting new faculty members, however, there is no further mention of staff retention in the SER or whether exit interviews and analysis of staff retention is conducted.

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.

Judgment: Not Addressed

- As per the SER, the MND programme is supported by 11 dedicated classrooms equipped with computers, projectors, and whiteboards/smartboards where applicable. Skills laboratories are available to students, equipped with manikins, materials and electronic medical devices. However, the laboratories are poorly equipped, to cover the core competencies of the MND programme. Some of the missing equipment are the indirect calorimetry, high-performance liquid chromatography and spectrophotometer. It is not evident that there is any policy on replacement of equipment or plans for further development of the laboratory resources, other than the Panel was informed that purchase of some PCR machines was approved three years ago but has been put on hold. The Panel recommends that the University should develop a policy for replacement of laboratory equipment and a plan with associated budget to properly equip the MND laboratories with the needful scientific equipment.
- The Information Technology Center (ITC) provides students with email accounts, login credentials into the Student Information System (SIS). Computer laboratories are also available to students. Information Technology (IT) technical support is provided by the E-Learning Center. The Panel is of the view that IT facilities are appropriate for students' needs.
- The library provides students with access to textbooks and journals in addition to six study rooms. The Panel visited the library during its tour visit and found the study spaces within the library to be limited. The Panel advises the University to consider the expansion of the physical library amenities, to allow more students' access. A spreadsheet was provided evidencing the type and number of textbooks available. During the panel's interview with staff, it was confirmed that the library databases include Science Direct and there is a subscription to the British Library Interlibrary Loans service, but not to Cochrane reviews. The Panel suggests that UoB subscribe to Cochrane reviews.
- Maintenance contracts for some of the laboratory resources (Perkin Elmer equipment) were provided. However, no evidence was provided on how other specialist equipment (e.g. spectrophotometry) is maintained. Thus, the Panel recommends that the University should audit the equipment maintenance needs of the laboratories and place maintenance contracts accordingly.
- The SER outlines arrangements to ensure the health and safety of students and staff on campus. A safety booklet is issued to students, which includes most of the information

that would be expected of such a document. The Panel suggests that UoB add contact information for relevant personnel to the college's safety booklet.

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.

Judgment: Addressed

- The SER provides details of the use of the SIS for the management of student information, academic records and course evaluation reports, as well as for supporting the decision-making process in terms of student progression, staff appraisal and contract renewal. This was shown to the Panel during the live demonstration of the SIS. Tracking reports on the utilization of laboratories, e-learning facilities, etc., were discussed with senior management during interviews, and the Panel learnt that they use generated reports from the SIS to inform decision-making.
- UoB has an ITC Cyber Policies and Procedures document dated 2019 that includes provisions on security of IT systems. The ICT also implements a risk management plan, which calls for regular electronic backup and data recovery. To ensure the integrity, confidentiality, and protection of the students' data, the SIS employs several access authentication and access control measures. The Panel notes with appreciation that the institutional policies and procedures provide appropriate provisions on security of IT systems and layers of access to secure students' records and their accuracy.
- A sample MND transcripts was provided. The SER does not discuss the accuracy of transcripts in describing the achieved learning nor the timeline of issue or cite specific policies or procedures to ensure accuracy or issuing of transcripts and certificates in a timely manner. This was discussed with faculty and students who confirmed that transcripts are made available promptly and are accurate.

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.

Judgment: Addressed

- As per the SER, there are seven technicians, one technician for every two laboratories. During the tour visit, the Panel noticed that two staff are available to serve at the two-story library, both are positioned on the ground floor. The Panel, thus, advises the University to provide more staff at the library to assist students.
- A career counselling office is available in the University, which provides services including professional training and career guidance. Further information through the website states that this office runs annual and specialized career days. Newly admitted students attend an induction day held by the Deanship of Student Affairs Guidance and Counseling Department in addition to a separate induction at the college level. The students confirmed the adequacy of induction/orientation during interviews.
- Academic advising is provided to MND students by faculty. Evidence of communication between students and advisors was provided. The minimum frequency of academic advising is not mentioned in the SER. The SER and supporting evidence do not specially mention academic advising to support students in achieving graduate attributes and learning outcomes nor is this evaluated in Senior Student Exit Surveys. However, the students and alumni confirmed during interviews that advising is adequate.
- The MND programme admits and supports students of both genders, but most students admitted are female. The SER discusses support facilities for students with special needs provided by the Guidance and Counselling Department of the Deanship of Students' Affairs.
- Students at risk of academic failure are identified through the SIS. The academic advisor, in coordination with the teaching faculty, provide academic advice to at-risk students. Apart from the Academic Advising Regulations, the SER does not cite any additional evidence or statistics of at-risk students, their monitoring or timely intervention. The Panel recommends that the College should ensure that at-risk students are monitored and given adequate support.
- The SER does not discuss or cite additional evidence to indicate that support services are regularly assessed and improved on in line with students' needs. Nonetheless, the Panel found evidence that student support services are regularly assessed through surveys.

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.

Judgment: Not Addressed

- The SER makes claims of a variety of student assessment. However, the Panel was not provided with complete course portfolios containing course specifications, assessment instruments, examples of student work etc.; only three of the 16 courses were provided during the visit and a further four (incomplete portfolios) were provided immediately after the review visit. The Panel was unable to verify the veracity of this statement or application of policy across the full portfolio of the MND courses. The Panel recommends that the College should ensure that the assessment of students in the MND programme is compliant with relevant university policies to ensure valid and reliable assessment methods in line with current good practices in terms of the level of assessments' complexity and meeting the academic standards of the programme.
- There is a process in place to document the alignment of assessments with CILOs and PILOs. The PILOs are measured through direct and indirect measures. There are also processes for moderation of assessment instruments, and the course portfolios include copies of Course Review Forms and CILO Assessment Forms that require identification of proposed actions/recommendations for course improvement that can include assessment processes. However, none of these documents require identification of previous recommendations, their implementation or effectiveness. Therefore, the Panel advises the University to modify its quality reporting forms to include following-up with previous recommendations and their effectiveness.

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).

Judgment: *Partially Addressed*

- Policies that relate to academic integrity are included in the Regulations of Study and Examinations and the Regulation of Professional Conduct Violations for Students. The University has also a published Anti-Plagiarism Policy. The SER states that the Anti-Plagiarism Policy is distributed to students during induction and explains invigilation procedures. Evidence related to the application of the procedures was provided to the Panel.
- Students and faculty confirmed during interviews that similarity indexing software is used. They identified that students are allowed unlimited submissions of their work and a threshold index above which investigation is warranted was identified but not consistent. The Panel recommends that the College limits the number of times that students can resubmit their work to similarity indexing software and define and communicate guidance on the threshold similarity index above which investigation is warranted.

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.

Judgment: *Not Addressed*

- The university's approach to internal moderation of student assessment is defined in the Assessment Moderation Policy. There is evidence of moderation in the course files of two of the seven portfolios that the Panel received. None of the moderation forms identify any changes needed; the forms confirm the moderators' agreement with the assessments. The choice of internal moderators in both courses is appropriate. The SER also includes a department's multi-year plan for which courses will be moderated but this does not include any courses related to the MND programme. The Panel recommends that the College should ensure that all courses are internally and externally moderated according to a pre-set plan. The SER is silent on processes for evaluation of the effectiveness of the MND internal moderation of student assessment. The Panel recommends that the College should put in place a process to evaluate the effectiveness of its internal moderation of student assessment.
- External moderators are employed following formal invitation as per the expectations of the Assessment Moderation Policy. The roles and responsibilities of external moderators are detailed in the Policy but the Policy does not identify threshold criteria for appointment of externals. The Panel suggests that UoB add threshold criteria for appointment of external moderators to its Assessment Moderation Policy. The SER notes

that external moderators have not been appointed for the MND programme and states that appointment is due for Fall 2022. Therefore, the Panel recommends that the College should appoint external moderators for the MND programme, use their feedback in improving the courses and evaluate the effectiveness of the external moderation process once it is implemented.

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.

Judgment: Not Addressed

- The SER claims that there is a clear policy for the assessment of clinical placement, 'Internship' (BIONU 510) course but references the internship course specification. There are policy documents that deal with generic aspects of the management of teaching, learning and student assessment but they do not explicitly address the specific needs of work-based learning. The University publishes brief internship guidelines that identifies roles and responsibilities of each party involved in the internship, but this does not adequately address the Quality Assurance (QA) and management of the work-based learning course. The Panel recommends that the University should develop clear policy and procedures to manage, and quality assure the work-based learning process.
- The eight weeks period of clinical placement, 'Internship' (BIONU 510) course, is notably short compared to that required by international professional bodies. A benchmarking exercise has been undertaken, which includes identification of work placement/internship requirements, and the MND requirement of 320 hours is less than half of that of any of the programmes that were chosen as comparators. However, this was not discussed in the benchmarking report and the May 2022 meeting of the Departmental Council concluded that the MND programme is comparable to others. The Panel recommends that the College should adjust the placement period to match international expectations.
- It is a normal expectation that work-based learning placements are formalized through agreements such as memoranda of understanding. This was discussed with the faculty and senior management, who confirmed that this is an expectation of the University, but no such agreements have been put in place with the MND placement providers. Furthermore, the Panel learnt that no formal training, e.g. in student assessment, in place for the preceptors, in addition, threshold criteria for the approval of the training sites and for appointment of preceptors are not identified. Therefore, the Panel recommends that the University should establish formal agreements for provision of work-based learning placements with the providers for the MND programme, put in place an MND preceptor

training (train the trainers) programme and clearly identify threshold criteria for the approval of the MND training sites and the appointment of MND preceptors.

- According to the course specification, the 'Internship' (BIONU 510) course contributes to seven of the PILOs. The SER does not discuss how effective the course is in allowing achievement of the PILOs and no course portfolio for the course, which would be expected to include evaluation of effectiveness, was provided. The 'Internship' course does not, in the panel's opinion, meet the internationally recognized expectations of a dietetics programme placement, primarily due to its lack of structure, ill-defined student assessment, lack of a well-defined competency-based approach and because it provides students with only 320 hours of experiential learning which is very considerably less than international expectations. Furthermore, the evaluation of the effectiveness of the work-based learning does not extend to solicitation of student feedback on their experience in the student/graduate/alumni surveys. The Panel recommends that the College should regularly evaluate the effectiveness of the Internship course and its contribution to the achievement of the programme aims and PILOs and how such evaluation has been used to improve the work placements.
- The assessment of students in the BIONU 510 course is specified in the course description and an example of student work is provided. The assessment is based 60% on the preceptor's report on the student, but this is based on the student's completion of activities that are not defined by the University and there is no identification of specific threshold outcomes or competencies. Although the SER provides a description of the student supervision and assessment process, it does not discuss the broader management of the internship assessment, its consistency of implementation or appropriateness in terms of content and level. The Panel recommends that the College should ensure that the assessment of the MND internship course is well-managed, consistently implemented, and is appropriate in terms of content and level. Furthermore, the Panel recommends that the College should modify its student assessment in course BIONU 510 to identify specific professional activities that students must be assessed and demonstrate competence in.

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.

Judgment: Partially Addressed

- The Study Plan includes a six-credit research thesis 'Thesis' (BIONU 599) course. Whereas the thesis should make a major contribution to the achievement of the MND PILOs, there

is no discussion of this in the SER, and the Panel did not receive the requested course file to assist it in its evaluation. The Panel recommends that the College should ensure that proper process is implemented to ensure the effectiveness of the Thesis course in allowing attainment of the MND PILOs.

- The SER claims that roles and responsibilities of the supervisors and students are stated in relevant policies and cites two evidence: the Regulations of Study and Examinations, which contains no relevant information, and a link to course e-portfolios that is password protected and inaccessible. The Panel had requested passwords, but these were not provided. The Panel was able to independently locate a summary of supervisor and student roles on the university's Postgraduate Programmes website in a document titled 'Research Proposal Template'. The Panel recommends that the University should publish policy and guidance on the roles and responsibilities of the supervisors and students and communicate them to all stakeholders and suggests that this be incorporated into the thesis/senior research project handbook.
- The responsibilities of the supervisor as articulated in the SER include monitoring of the student's progress and the Panel was provided with evidence that demonstrates monitoring of progress. Evaluation of satisfaction of the students with supervisory process and resources is not addressed in the SER. The Senior Student Exit Survey is directed at undergraduate completers and there are no questions about thesis in it. The Panel recommends that the College should put in a place a regularized process for determining student satisfaction with thesis supervision and resources.
- The SER describes processes for assessment of the Thesis. Grading rubrics are used, and the Panel was informed that second marking is used, though the thesis portfolio was not made available to evidence this. Furthermore, the SER is silent on how the implementation and effectiveness of improvement actions related to the thesis are monitored. The Panel refers to its earlier recommendation under Indicator 3.1.

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.

Judgment: Not Addressed

- The Panel had very little access to examples of student work and during the virtual interviews, the Panel was provided with three course portfolios, also examples of student work were provided to demonstrate similarity indexing. Although the examples of student work did not raise concern, this was too small as sample for the Panel to reach a conclusion on the appropriateness of student achievements. The SER does not discuss

students' ability to create and innovate. The Panel recommends that the College should develop a mechanism to evaluate whether students' achievements are appropriate based on careful scrutiny of students' assessed work (different levels and types of courses) and reflects their ability to create and innovate.

- The SER provides no information on retention and progression statistics. The Panel was provided with statistics, which shows the number of admitted and graduated students. These statistics also shows that 33.3% of students received (E) in 2020; this percentage increased to 50% in 2021. Other than this, no information on retention, progression length of study and ratios were provided. The Panel recommends that the College should keep statistics about the ratios of admitted students to successful graduates including year-on-year progression, retention, and length of study and ensure that these are consonant with those on equivalent programmes.
- The SER does discuss graduate destinations and employment data and these support that the students are employable in relevant sectors. The Employer Survey supports a conclusion of employer satisfaction with the MND graduates. The University did not make available MND employers for the employers meeting with the Panel during the virtual interviews.

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.

Judgment: Partially Addressed

- There are appropriate institutional policies and regulations for QA processes that are described in the Quality Manual, and the Quality Assurance and Enhancement Policy. The Manual is available to constituents at the UoB's website and well communicated to stakeholders.
- At the college level, the College Quality Assurance Committee, with clear ToRs, monitors the QA compliance, assessment, and accreditation activities. At the programme level, the departmental Quality Assurance Committee is responsible for all QA matters related to the programme. In addition, there is a College Quality Assurance Office, which is managed by a director who reports directly to the Dean and the Quality Assurance and Accreditation Executive Committee.
- Based on interviews with faculty members and supporting staff, the Panel finds that the programme faculty have sound understanding of the QA system and their role in ensuring its effectiveness. However, no sufficient evidence was provided to demonstrate that UoB policies and procedures are consistently implemented at the programme level. The Panel recommends that the College should ensure that the university's policies and procedures are consistently implemented at the programme level.
- The Panel was informed, during interviews, that the QA processes are periodically evaluated and improved. This includes internal audits as per the Internal Quality Review Policy and Procedures. However, no sufficient evidence was provided to demonstrate that these audits are conducted on a regular basis and that the overall effectiveness of the QA system has been evaluated. The Panel recommends that the University should monitor, evaluate and improve the QA management system at the programme level.

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.

Judgment: *Partially Addressed*

- The College has an appropriate organizational chart for the management of the programme, with clear reporting lines that support communication and decision-making across the College. The programme is managed by the Head of the Department, who is burdened with other responsibilities.
- Responsibility and custodianship of the academic standards of the programme at department, college, and university levels as well as the ToRs for all committees and the job descriptions for senior leadership positions are described in the Quality Manual. However, effective and responsible leadership is not evident in the MND programme, based on the shortcomings identified in different parts of this report. Hence, the Panel recommends that the College should enhance the programme management to ensure proper academic responsibility and custodianship of academic standards.

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.

Judgment: *Not Addressed*

- The Panel examined the Annual Self-Evaluation Report (ASER) of the programme of 2020-2021, which is prepared by the Departmental Quality Assurance Committee and found that it contains very little information and short analysis about different aspects of the programme; some aspects were left empty. Furthermore, little actions have been specified for improvement, although the interviews with constituents have indicated that the programme is struggling. In addition, improvement plans that have emanated from the recommendations of the Student Advisory Committee and discussed in the departmental council meeting, such as the nature of assessments employed, teaching and learning methods in courses, and internships, have not been properly addressed. There were no clear changes implemented, nor were there any progress reports presented. No other ASER was provided to the Panel to demonstrate the regularity of conducting annual reviews for the programme. Therefore, the Panel expresses deep concern regarding the implementation of QA processes in the MND programme and recommends that the College should ensure that annual review of the programme is regularly conducted, with comprehensive data and analysis; rigour recommendations are elicited from the process

and proper actions are implemented; evaluation of effectiveness is implemented and rigorously monitored.

- The policy for the annual and periodic reviews of programmes is stipulated in the Quality Assurance and Enhancement Policy. The MND programme has been offered for eight years but the Panel received no evidence of it having yet been reviewed according to UoB's periodic review process. The evidence provided was an internal audit report conducted by UoB. In view of the identified deficiencies in the annual review process for the MND programme, and the absence of periodic review, the Panel recommends that the College should ensure that periodic review of the programme takes place on a regular basis, and that the results of this review are implemented and monitored.

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.

Judgment: Partially Addressed

- UoB has a benchmarking policy as part of its programme QA processes. The benchmarking of the MND programme has been conducted against six similar programmes offered by international universities; no regional university is reported. The benchmarking report covered many aspects of the programme, including the mission, learning outcomes, duration, number of courses and credits, list of courses, capstone project and internship. However, the Panel notes that the benchmarking report does not refer to the discrepancies found with these programmes such as the period of clinical placement and the other deficiencies identified by the Panel under indicators 1.1 and 1.3. Furthermore, the benchmarking report does not provide any comparison of year-on-year admission, progression, retention, length of study and graduate destinations for the MND programme with these programmes. Therefore, the Panel recommends that the College should expand the benchmarking practice to include regional universities and all the main aspects of the programme; and ensure that the identified discrepancies are reported and tackled.
- The Panel confirmed that there are formal mechanisms for collecting structured comments from internal and external stakeholders (surveys, focus groups, etc.). Submitted evidence indicates that Alumni Surveys and Employer Surveys have been deployed to gather stakeholders' input on the MND programme. Although the results of the various surveys were discussed in the Department Council and suggestions on how to address programme weaknesses were proposed, the Panel was not able to identify whether any steps were

taken towards remediation, or if any changes to the curriculum were implemented accordingly (see recommendations under Indicator 4.3).

- While the SER is silent on how changes to the programme are communicated to various stakeholders, the Panel was informed during interviews with members of the Programme Advisory Committee (PAC) that such communications took place during PAC meetings. However, the Panel concluded from interviews with various stakeholders that a mechanism to communicate the outcomes to other stakeholders such as alumni and employers is lacking. The Panel recommends that the College should develop a systematic mechanism of communicating to stakeholders the changes or decisions made on the basis of their feedback and set in place a process to evaluate the effectiveness of the mechanism.

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.

Judgment: Not Addressed

- The SER states that the MND programme has a PAC made up of employers and members of the private sector, with clear ToR that regulate and guide the duties of its members. Provided evidence indicates that PAC meetings take place, whereby little updates on the programme are shared and discussed; however, none of the attendees during the virtual interviews were nutrition and dietetics related. Furthermore, although during virtual interviews, the Panel was able to confirm that the PAC meets regularly; the provided evidence contains only the minutes of one meeting. Therefore, the Panel was unable to identify how feedback from the PAC is used to inform programme decision making and whether any emanating changes are evaluated in the context of better addressing the labour market needs. Hence, the Panel recommends that the College should ensure that the PAC meets regularly and its feedback is used to improve the programme delivery.
- The SER is silent on mechanisms used to monitor and review how well the programme meets the labour market and national and societal needs. Although interviews with employers and alumni have pointed to specific improvements to the programme that are needed to better align it to the job market, whether these have been taken into consideration by the University and the programme, and whether their effectiveness has been evaluated is not clear, in the absence of a clear implemented mechanism. In addition, no evidence was presented of any rigorous study, e.g. market survey, to scope the labour market and the national and societal needs, and no formal mechanism is described to evaluate the limited information available from the Alumni and Employer Surveys. As discussed in Indicators 1.1 and 1.2, the relevance of the programme to labour market and

societal needs is compromised through its structure that does not meet the expectations of a Dietetics programme and does not allow graduates to register for licensure as dietitians. Therefore, the Panel recommends that the College should conduct a formal study with targeted data to scope the labour market and the national and societal needs to ensure that the programme is relevant and up to date.

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 No Confidence in the Master of Science in Nutrition and Dietetics of College of Science offered by the University of Bahrain.

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

1. The institutional policies and procedures provide appropriate provisions on security of information technology systems and layers of access to secure students' records and their accuracy.

In terms of improvement, the Panel recommends that the University of Bahrain should:

1. Develop policy and process for programme risk management.
2. Review and revise its MND programme risk assessment to accurately define the risks faced by the programme and actions for their mitigation.
3. Review the whole programme to ensure that its title is indicative of the qualification's type and content including experiential training needs, and its relationship to National Health Regulatory Authority licensure requirements.
4. Identify and review how the MND programme contributes to the achievement of the college and institution strategic goals.
5. Revise the mechanisms used to ensure the completeness of course portfolios and that the entire course syllabi are covered.
6. Add relevant nutrition textbooks to the library and audit the currency of the syllabus reading lists.
7. Revise the curriculum to ensure the balance between theory and practice and between depth and breadth.
8. Substantially increase the laboratory skills of students.
9. Define expected competencies and/or entrustable professional activities expected of MND graduates and develops assessment of students' attainment of these.
10. Identify the required expertise for the MND programme and develop faculty hiring plan based on this and expedite its implementation.

11. Develop a policy for replacement of laboratory equipment and a plan with associated budget to properly equip the MND laboratories with the needful scientific equipment.
12. Audit the equipment maintenance needs of the laboratories and place maintenance contracts accordingly.
13. Ensure that at risk students are monitored and given adequate support.
14. Ensure that the assessment of students in the MND programme is compliant with relevant university policies to ensure valid and reliable assessment methods in line with current good practices in terms of the level of assessments' complexity and meeting the academic standards of the programme.
15. Limit the number of times that students can resubmit their work to similarity indexing software and define and communicate guidance on the threshold similarity index above which investigation is warranted.
16. Ensure that all courses are internally and externally moderated according to a pre-set plan.
17. Put in place a process to evaluate the effectiveness of its internal moderation of student assessment.
18. Appoint external moderators for the MND programme, use their feedback in improving the courses and evaluate the effectiveness of the external moderation process once it is implemented.
19. Develop clear policy and procedures to manage, and quality assure the work-based learning process.
20. Adjust the placement period to match international expectations.
21. Establish formal agreements for provision of work-based learning placements with the providers for the MND programme, put in place an MND preceptor training (train the trainers) programme and clearly identify threshold criteria for the approval of the MND training sites and the appointment of MND preceptors.
22. Regularly evaluate the effectiveness of the Internship course and its contribution to the achievement of the programme aims and PILOs and how such evaluation has been used to improve the work placements.
23. Ensure that the assessment of the MND internship course is well-managed, consistently implemented, and is appropriate in terms of content and level.
24. Modify its student assessment in course BIONU 510 to identify specific professional activities that students must be assessed and demonstrate competence in.
25. Ensure that proper process is implemented to ensure the effectiveness of the Thesis course in allowing attainment of the MND PILOs.

26. Publish policy and guidance on the roles and responsibilities of the supervisors and students and communicate them to all stakeholders.
27. Put in a place a regularized process for determining student satisfaction with thesis supervision and resources.
28. Develop a mechanism to evaluate whether students' achievements are appropriate based on careful scrutiny of students' assessed work (different levels and types of courses) and reflects their ability to create and innovate.
29. Keep statistics about the ratios of admitted students to successful graduates including year-on-year progression, retention, and length of study and ensure that these are consonant with those on equivalent programmes.
30. Ensure that the university's policies and procedures are consistently implemented at the programme level.
31. Monitor, evaluate and improve the QA management system at the programme level.
32. Enhance the programme management to ensure proper academic responsibility and custodianship of academic standards.
33. Ensure that annual review of the programme is regularly conducted, with comprehensive data and analysis; rigour recommendations are elicited from the process and proper actions are implemented; evaluation of effectiveness is implemented and rigorously monitored.
34. Ensure that periodic review of the programme takes place on a regular basis, and that the results of this review are implemented and monitored.
35. Expand the benchmarking practice to include regional universities and all the main aspects of the programme; and ensure that the identified discrepancies are reported and tackled.
36. Develop a systematic mechanism of communicating to stakeholders the changes or decisions made on the basis of their feedback and set in place a process to evaluate the effectiveness of the mechanism.
37. Ensure that the Programme Advisory Committee meets regularly and its feedback is used to improve the programme delivery.
38. Conduct a formal study with targeted data to scope the labour market and the national and societal needs to ensure that the programme is relevant and up to date.