



هيئة جودة التعليم والتدريب
Education & Training Quality Authority
Kingdom of Bahrain - مملكة البحرين

Directorate of Higher Education Reviews

Programme Review Report

**Applied Science University
College of Administrative Sciences
Bachelor in Management Information Systems
Kingdom of Bahrain**

Site Visit Date: 5-8 December 2021

HA037-C3-R037

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Acronyms

ACM	Association for Computing Machinery
AIS	Association for Information Systems
APRR	Annual Programme Review Report
ASU	Applied Science University
BMIS	Bachelor in Management Information Systems
BoT	Board of Trustee
BQA	Education & Training Quality Authority
BQA	Education and Training Quality Authority
CER	Course Evaluation Reports
CILO	Course Intended Learning Outcome
DHR	Directorate of Higher Education Reviews
EBSCO	Elton B. Stephens Co.
HEC	Higher Education Council
HoD	Head of Department
ICT	Information and Communication Technology
ILO	Intended Learning Outcome
IT	Information Technology
KPI	Key Performance Indicator
LTAS	Learning, Teaching and Assessment Strategy
MATLAB	Matrix Laboratory
MEU	Measurement and Evaluation Unit
MIS	Management Information System
MoU	Memoranda of Understanding
NQF	National Qualification Framework
OOPT	Oxford Online Placement Test
OP	Operational Plan

PAB	Programme Advisory Board
PILO	Programme Intended Learning Outcome
PPRR	Periodic Programme Review Report
PRAR	Programme Reflective Analysis Report
QAA	Quality Assurance and Accreditation Council
QAAC	The Quality Assurance and Accreditation Centre
QS	Quacquarelli Symonds
SER	Self-evaluation Report
SIS	Student Information System

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 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*	Applied Science University
College/ Department*	Administrative Sciences / Management Information Systems
Programme/ Qualification Title*	Bachelor in Management Information Systems
Qualification Approval Number	Cabinet of Minister Decision No. (1402004/ و) of 2004
NQF Level	8
Validity Period on NQF	Five years from the validation date
Number of Units*	45
NQF Credit	540
Programme Aims*	<ul style="list-style-type: none"> • To provide students with advanced knowledge in the field of management information systems and the implementation and management of information systems within the modern digital business environment. • To develop students' digital skills to critically analyze business process and situations and to implement relevant Information System solutions that required for a professional career of the management information systems. • To equip students with digital skills to transfer knowledge and technology within the business environment, and to understand how technology positively influences business success and development. • To perform a comprehensive review of information systems, and to understand how to use and implement enterprise systems as a platform for digital business. • To extend students' knowledge of the digital business environment by introducing students to know how to manage various information systems resources. • To provide students with comprehensive understanding of the knowledge management concepts and its processes, and to learn the types of knowledge management solutions and techniques. • To equip students with, technical, analytical, interpersonal, communication, business, ethical and other personal development

	<p>and lifelong learning skills to enable them to contribute ethically and in a socially responsible manner both in their professional role and to society at large.</p>
<p>Programme Intended Learning Outcomes*</p>	<p>A. Knowledge and Understanding:</p> <p>A1. Demonstrate critical knowledge of core Information systems concepts including but not restricted to information systems infrastructure, information systems security, ethical considerations, and successful application of systems in a business context.</p> <p>A2. Demonstrate critical practical knowledge of the Information System and Information Technology (IT) tools which are used in designing, implementing, evaluating, securing, and auditing Management Information systems.</p> <p>B. Subject-Specific Skills:</p> <p>B1. Identify problems in selection/design and implementation of information systems to solve business problems, critically applying an extensive understanding of information systems, infrastructures, tools, and components and the context in which they can be used effectively.</p> <p>B2. Critically apply appropriate Information System theories, tools and techniques, systems, and strategies to solve problems in a range of business problems in both well-defined and loosely defined contexts.</p> <p>C. Critical Thinking Skills:</p> <p>C1. Use a range of approaches to critically analyze, synthesize, and evaluate information systems and concepts and use.</p> <p>C2. Analyze and recommend relevant solutions to business problems drawing on practical knowledge of IT elements, and a range of different Information System solutions.</p> <p>D. Generic and Transferable Skills:</p> <p>D1. Use special skills to communicate with colleagues and specialists in the field of information systems adapting the message to the audience and making appropriate use of Information and Communication Technology (ICT) when making formal presentations.</p> <p>D2. Operate autonomously at a specialist level to demonstrate individual responsibility, or demonstrate joint responsibility when required to lead or participate in group projects to demonstrate leadership, decision making and interpersonal skills.</p>

* Mandatory fields

III. Judgment Summary

The Programme's Judgment: 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	Partially 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	Partially Addressed
Indicator 2.2	Academic Staff	Addressed
Indicator 2.3	Physical and Material Resources	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	Partially Addressed
Indicator 3.2	Academic Integrity	Addressed
Indicator 3.3	Internal and External Moderation of Assessment	Partially Addressed
Indicator 3.4	Work-based Learning	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	Addressed
Indicator 4.4	Benchmarking and Surveys	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.

Judgment: Addressed

- The Bachelor in Management Information Systems (BMIS) was first offered by the Applied Science University (ASU) in the Academic Year (AY) 2005-2006. The programme was reviewed and modified for first delivery in AY 2020-2021. The process for validation of new programmes and review / substantial amendment of existing programmes at ASU is defined by the New Programme Development Policy and Procedures. The Policy defines an Initial Approval Process, including development of a programme rationale, programme specification, programme development proposal proforma, consultation with internal and external stakeholders and market research. The Panel is of the view that the planning process is designed to ensure that the programme is relevant, fit for purpose and complies with existing regulations.
- ASU has a university level Risk Management Policy which specifies that risk management is led by the Board of Trustees (BoT) with the University Management Committee having an overall responsibility for the management of risk reporting, at least annually to the BoT. A strategic risk register is identified annually. Responsibility for the management of operational risk is devolved to Colleges and Departments which develop their own risk register to be monitored once per semester. The College of Administrative Sciences (CAS) provided evidence of a risk register for AY 2020-2021 and an updated risk register for AY 2019-2020, highlighting how new risks may be added to the register. CAS also provided evidence that the College Risk Register is reviewed once per semester and that risks on the existing register are updated. The Panel notes the effectiveness of the register in identifying the risk owner and potential risks by outlining future risk mitigation strategies to be followed for issues such as the need for continuous programme reviews and pursuing formal benchmarking for all programmes.

- ASU achieved institutional listing in 2016. ASU has also incorporated mapping to the NQF within its Programme Development Policy and Procedures. This includes programme design requirements, programme level content mapping and confirmation processes. CAS provided evidence of the composition of the mapping panel for BMIS and provided evidence of the mapping panel's discussions and documented mapping panel report for BMIS resulting in placement on the NQF at level eight in October 2020.
- The programme title is concise and follows sector norms for this award content. The award is accurately documented on certificates and transcripts. The Panel was informed and noted that the degree certificate shows the NQF level. The programme title is accurately documented on university documents and on the ASU website.
- The programme aims for BMIS are described in the programme specification document. The aims are clear and appropriate for the level and title of the programme and in line with sector norms. The Management Information Systems (MIS) Department is subject to an annual and periodic review of the programme as part of the University processes, as defined in the Monitoring and Review of Programmes Policy and New Programmes Development Policy. The reviews include external examiners' review reports and reports from the BMIS Programme Advisory Board (PAB). The Panel notes that the PAB policy is available and appropriate in terms of providing input on the development of programme aims from external stakeholders.
- The Self-evaluation Report (SER) shows a mapping between the BMIS aims and both the College's and the University Mission and claims that the BMIS aims contribute to the Mission of the College and University. However, the Panel observed that both the College and the University Mission refer to the development of a culture of research / research impact. Whilst BMIS is an undergraduate programme, the Panel notes that the programme aims do not contribute to the Mission statements in the area of research, neither is there a mapping between the University Strategic Goals and BMIS programme aims. The Panel also notes that mapping of programme aims to University Mission or Strategic Goals is not part of the formal programme development process. Furthermore, the Policy for Programme Development and Review Processes do not include a requirement to undertake a mapping of the learning outcomes to the programme aims and graduate attributes. The Panel recommends that the College should review the programme aims with respect to meeting the Research Mission of ASU. The Panel also recommends that the College should revise the Programme Development and Review Processes to include the mapping of aims to ASU Mission and Strategic Goals and to ensure the alignment of the learning outcomes to the programme aims.

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

- ASU has defined a set of graduate attributes at an institutional level. The attributes are included in the BMIS programme specification and in the Student Handbook, but do not appear on the programme website or prospectus. The CAS has developed a mapping between the Programme Intended learning Outcomes (PILOs) and graduate attributes, which is appropriate for the programme.
- The ASU Teaching and Learning Strategy specifies that all programmes have appropriate learning outcomes. The PILOs for BMIS are clearly stated and mapped to the programme aims.
- The PILOs of BMIS are clearly stated in the SER and programme specification. The PILOs are appropriately written for the level of the programme, requiring appropriate higher level thinking skills. The programme has been benchmarked in line with the ASU Benchmarking Policy. Benchmarking includes comparison of content with regional and local universities. Benchmarking demonstrates a good match with programmes in the sector. However, the titles of the benchmarked programmes are not included to ensure equivalent programmes are being benchmarked. In addition, the Panel noted benchmarking of the programme with the ACM / Association for Information Systems (AIS) and with the Quality Assurance Agency for Higher Education, United Kingdom. ASU has introduced a mapping panel within the Programme Development Policy and Procedures to ensure that all programmes are appropriately mapped to the NQF. Evidence was provided to demonstrate that mapping to NQF was undertaken rigorously and by an appropriate panel including external members. Notwithstanding the missing programme titles indicated above, the Panel noted the level of benchmarking undertaken is thorough and appropriate for the programme.
- The course specifications, including Course Intended Learning Outcomes (CILOs) were provided to the Panel. The CILOs are appropriate for the level of the course. However, the Panel noted that the contents do not always match the CILOs. For example, the 'Information Systems Security' course (MIS343) is solely lecture based but the CILOs indicate the use of practical specialist skills. This issue is further considered in Indicator 1.3 below.
- Evidence was provided of the mapping between PILOs and CILOs and of the course specifications and CILOs. There is a clear mapping between PILOs and CILOs for the

programme. However, the Panel concludes that some CILOs are not appropriately mapped to PILOs in particular with respect to practical skills development. This issue is further considered in Indicator 1.3 below.

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: Partially Addressed

- The structure, progression and regulations applicable to BMIS and other Bachelor programmes are defined in the ASU Bachelor Degree Bylaw. The BMIS programme structure is clearly described in the SER. The programme specification identifies pre-requisite courses, NQF levels and credits. The Panel notes that there is appropriate progression year on year, and course by course with appropriate pre-requisites and student workload. However, the Panel notes that in ASU Bachelor Degree Bylaws, Article 10 (student load) states that students can take up to twenty-one additional credit hours in 'first and second semesters' if they need extra credit hours to fulfil graduation requirements in that semester. Also in Article 11, a student can take any number of credit hours in the graduation semester 'without considering the minimum level of the prescribed study load'. The Panel recommends that ASU should revise the maximum student's load in the first and second semesters so that it should not exceed 18 credit hours (six courses) to enable students to adjust to the higher education environment.
- ASU Monitoring and Review of Programmes Policy specifies that periodic review should take place every five years. It also specifies that benchmarking is part of the periodic review. Aspects to be benchmarked should include course specification, programme aims, CILOs, descriptions and content. CAS provided evidence of benchmarking against programmes within and external to Bahrain. The Panel noted that the BMIS is based on the ACM/AIS model 2010 standard 'Curriculum Guidelines for Undergraduate Degree Programs in Information Systems' which was finalized in 2010. The benchmarking exercise suggested that more technical IT courses to be included in the programme. This view was partially supported by the external examiner programme review report, indicating that recent advances in the discipline area such as business data analytics, cybersecurity and big data should be considered for inclusion as compulsory or elective courses in the programme. This issue is considered further below.
- The BMIS study plan was reviewed following the BQA programme review in 2013 and again in 2020 following the periodic review which identified a need to embed more practical skills in the programme. The Panel was informed about the courses with practical

implementation assessments on the programme which indicated that most practical assignments are either reports or questions about a design (such as a database design) that is provided to students. Implementation of practical elements was largely simple programming exercises or implementation of a screen design. Evidence was provided to show that the PAB provides suggestions into the Annual Programme Review Report (APRR) on the balance between theory and practical. Feedback from stakeholders indicated that the programme would benefit from additional courses being included such as in big data. The Panel learned that 'topics' are included in one course on advances in MIS, however, this is not considered sufficient for some areas of development. The Panel recommends that the College should review the BMIS programme with respect to the balance between theory and practice and the inclusion of recent significant subject areas within MIS to ensure that students are given appropriate knowledge and practical skills to support their future employment.

- The benchmarking of the programme confirmed that the programme has appropriate depth and breadth of subject coverage through the course contents. However, the benchmarking highlighted that there are curriculum areas that CAS could consider for inclusion in the programme. This view is supported by the external examiners periodic review report. The Panel were provided with evidence which confirmed the conclusion that the programme is delivered with appropriate subject depth and breadth.
- The SER claims that students are provided with a core textbook for each course. The Panel was able to confirm this and that the supplementary reading for students on courses is relevant. Evidence was provided of core textbooks used on the programme. The textbooks are appropriate for the courses specified but include many that are not recent. Further, many textbooks and research references identified in the courses' specifications are out of date. The Panel recommends that ASU should update the textbook collection and course specification booklists to enable students and staff members to access recent published articles in the specialization for teaching and research purposes.

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: Addressed

- ASU has an institution wide Learning, Teaching and Assessment Strategy (LTAS), which was approved in 2013 and in 2017 with minor updates. The LTAS is explicitly linked to the institution Strategic Plan. ASU's Learning and Teaching Committee has, as part of its remit, to support the development of the strategic development of learning and teaching at ASU and to support the development of College LTAS. The Panel noted that the LTAS

and the embedded implementation plan do not refer to specific teaching methods, and approaches to teaching and learning, for example flipped classrooms, however the development of research-informed teaching and the development of e-learning / e-learning resources *via* the development of an e-learning strategy are referred. The College Operational Plan includes a section on learning and teaching; however, this does not refer to development of teaching methods, nor monitoring of existing teaching methods. The Plan does specify that e-learning activities are embedded in college courses. The Panel requested evidence of a college level Learning Teaching and Assessment Plan, but this was not provided. The Panel recommends that the College should develop a more detailed College-specific LTAS, and an implementation and monitoring plan that take into account the recent developments in teaching and learning.

- The SER claims that BMIS adopts a student-centred philosophy, including project work, and problem-based learning in line with the LTAS derived from the Strategic Plan. The Strategic Plan objectives refer to the development of ‘enhanced learning and teaching practices that lead to improvements in students’ knowledge skills and competences’. Key Performance Indicators (KPIs) associated with this objective refer to the development of, and satisfaction with, e-learning. In general ASU promotes research informed teaching and ‘high quality, flexible, regionally relevant and action-based learning and assessment’. The programme specification refers to a range of teaching and learning methods to support the PILO categories including interactive lectures, group discussion, practical demonstrations, computer laboratories for practical teaching and demonstration, field trips, projects and internship. The Panel found that teaching and learning methods specified in the programme specification are in line with the institution teaching philosophy. The course specifications indicate a standard approach to teaching and learning methods including, lectures, individual and group discussions. The Panel noted that there is limited systems development through implementation or case studies, for example in the Introduction to Database Systems course (MIS344) and the Mobile Computing course (MIS445). This issue was considered in Indicator 1.3 above.
- The development of e-learning strategy and resources are referred to in the LTAS. An e-learning Policy was approved by ASU in October 2020. The Policy specifies the compulsory and optional elements to be included in e-learning resources for a course. Furthermore, it specifies that it is the responsibility of the course instructor / coordinator and Programme Leader to ensure that e-learning resources are appropriate. The Panel was provided with evidence that the Academic Staff Development Unit provide a good range of training activities to support the development of distance learning. The Panel noted that whilst the e-learning policy was approved in October 2020, e-learning has been implemented at ASU using the Moodle platform prior to the policy approval. Results of the e-learning student satisfaction survey for AY 2019-2020 indicate that students in CAS and on BMIS are satisfied with all aspects of e-learning provision at ASU. The Panel found that e-learning is a part of the LTAS and does support the attainment of PILO/CILOs.

- In the SER, CAS claims that students get increasing exposure to independent learning citing courses in Applied Research, Entrepreneurship, Internship and Peer Classes. The Panel confirmed that courses in BMIS do develop these skills throughout the programme. The LTAS also promotes a range of teaching and learning methods and development of independent learning in general without detail of how this may be achieved. CAS claims that most courses contain applied practical skills development using specialized software and tools citing Applied Research Methods. However, the Panel is of the view that a broader range of practical skills are required by an MIS professional and these skills need to be further developed in the programme. This issue was considered in Indicator 1.3.
- BMIS includes a number of courses which are specifically designed to support students research capabilities and creative / innovation abilities. These include Applied Research, Entrepreneurship and Internship. The Panel reviewed evidence of student work in Applied Research and in the Graduate Project and found that there are a range of applications developed and research reviewed and concluded that BMIS does sufficiently strengthen students research, creative and innovative abilities.
- Formal learning with a variety of teaching and learning methods takes place in all years of BMIS. This is evidenced from the programme, course specifications and examples of student work reviewed by the Panel. CAS have identified a number of ways that BMIS students have the opportunity to learn informally and non-formally, including synchronous and asynchronous peer to peer discussions and BMIS organized activities such as internships / work-based learning and group projects. The Panel learned that students have had the opportunity to engage with a range of community activities coordinated through the Community Engagement Office, such as 'Tourism Hackathon'. The Panel was able to confirm that the BMIS learning environment is supportive of lifelong learning through multiple forms of learning.

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

- ASU has an Assessment, Moderation and Feedback (AMF) Policy, which provides a framework assessment practice. The policy defines six concepts for assessment which are, validity, reliability, efficiency, transparent processes, diversity and security. Furthermore, it refers to level descriptors based on the NQF that assessments are expected to reflect each level and incorporating increasing independent learning as students progress through the levels. The process identifies internal and external moderation of assignments and students' work and external examiners' reporting to ensure moderation in line with ASU's

policy. The role and responsibilities of the external examiners are also defined. ASU implements an internal audit, conducted by the Quality Assurance and Accreditation Centre (QAAC), of the implementation of the framework and external moderation.

- The SER claims that all policies and procedures are disseminated to relevant stakeholders *via* the Student Handbook, College Handbook, staff induction, student orientation and *via* the knowledge hub for staff. The Panel was able to confirm that information is available on the knowledge hub, the Student Handbook includes details of grade appeals but not assessment regulations, the CAS Programmes Handbook includes mark allocation and classification, Cumulative Grade Point Average (CGPA) calculations and appeals processes.
- The ASU LTAS identifies both formative and summative assessment requirements as part of a programme's assessment strategy. The Panel was able to confirm that both formative and summative assessment are included in the BMIS programme and that there is a good understanding of both assessment types by both staff and students, as confirmed during the virtual interviews. ASU has a clear marking criteria guide for all levels of Bachelor degrees. There are mechanisms to ensure that students get feedback on their work. The AMF Policy does not specify timescales for feedback to be provided on student work. From interviews and the provided evidence, the Panel learned that appropriate feedback generally is given within a reasonable time.
- The BMIS programme includes an Applied Research Methods course which is a mandatory part of the programme. The Panel notes that this includes principles of research. In addition, students take a compulsory MIS Ethics course and have the opportunity to participate in a student research conference, which was held in 2018 and 2019.
- The process for moderation of assessment is specified in the ASU AMF Policy which includes the review of assessments before use and the verification of marks after assessment. The role of the external examiner is specified in the External Examiner Policy. The Panel noted evidence of external review of assessments. The Panel was provided with evidence of internal and external moderation of marks, which showed internal and external moderation but with no changes requested. Post moderation showed all marks approved, but with no indication that the work had been remarked by the moderator. The Panel also noted that moderation of marks is not blind double marked. This issue is considered further in Indicator 3.3. External examiners also perform an annual review of many aspects of the programme provision, including the grading of assessments to ensure fairness of grading.
- ASU has provision for addressing academic misconduct as covered by the Academic Misconduct and Plagiarism Policy and Student Misconduct Bylaw. Students are made aware of academic misconduct through the Student Handbook. Academic misconduct

cases are heard by the College Disciplinary Committee. ASU requires that students submit their work *via* Turnitin prior to submission. The Panel noted that there is a danger of students repeatedly submitting work to meet a Turnitin threshold. The Panel suggests that ASU review its policy with respect to Turnitin draft submissions. ASU has conducted workshops to provide training for staff on, for example, academic misconduct, the uses and limitations of Turnitin.

- The process for handling student appeals is covered in the AMF Policy. Students are made aware of the appeals process through the Student Handbook. From interviews with students, the Panel confirmed that there is a good understanding of the academic misconduct and appeals processes.

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: Partially Addressed

- The admission policy of ASU (criteria and procedures) is clearly set and covers both new and transferred students to ASU. It is published in the Admission and Registration Manual. It is also embedded in the student application guide and MIS Admission Criteria and is communicated to stakeholders through the University Prospectus, Student Handbook and University Website. ASU ensures that each applicant is individually assessed according to the Equality and Diversity Policy adopted by ASU. The statistics provided in the SER demonstrates admission equality between female and male students in the BMIS programme.
- The ASU's admission criteria for Bachelor programmes state that the student should obtain a Secondary School Certificate or its equivalent certified by the Ministry of Education in the Kingdom of Bahrain with an average of no less than 60%. Students with averages below 60% may be admitted to the University, provided that they are distinguished athletes or artists or have at least one year of practical experience following their Secondary School Certificate. All cases with averages less than 60% are subject to the University Council approval and should not exceed 5% of the total admitted students. In addition, students admitted from Non-Scientific Secondary School fields should pass remedial courses and all students admitted should take a compulsory English placement test. The Panel noted that the admission requirements are appropriate for the BMIS programme, consistently communicated through the student application guide and are consistent with local / international requirements as confirmed through the benchmarking reports. English language ability is tested on entry using the Oxford Online Placement Test (OOPT).

- ASU does not have a foundation programme for entry to Bachelor programmes studied in English, such as BMIS. All BMIS applicants take the OOPT which is independently set and assessed. An OOPT score of 51% equates to CEFR B2 or an IELTS score of 5.5 on the OOPT website. The Panel noted that ASU requirements specify a score of more than 50% enables direct entry to BMIS without taking remedial English programmes. A score of 50% or less requires applicants to pass either ENG098 or both ENG097 and ENG098, depending on the score achieved, to progress to BMIS. The Panel noted that applicants are exempted from the placement test if they have obtained IELTS 5.0 or equivalent. It is clear, therefore, that the IELTS entry requirements are lower than the OOPT requirements. The Panel recommends that ASU should review the English entry requirements to ensure comparability between entry to BMIS through IELTS / TOEFL and OOPT. The Panel found from interviews conducted that ENG097 and ENG098 are not benchmarked to ensure that passing the courses equates to CEFR B1 or IELTS 5. The Panel recommends that ASU benchmark results for remedial English courses against international standards, such as IELTS, to ensure comparability of English assessment.
- As per the ASU Admissions Policy, applicants to BMIS from non-scientific school sections are required to take a remedial course such as Mathematics (MIS MAT041). The Panel was able to determine from interviews that the decision is made on an individual student basis about which, if any, remedial courses must be taken for students with this background. The specific remedial course(s) requirement is not specified in the programme specification, nor on the website. The Panel advises CAS to specify the remedial course(s) that will be required for specific weaknesses.
- ASU specifies procedures in the Credit Transfer Policy related to recognition of prior learning and transfer of credits, and in the Student Application Guide. This includes processes for students transferring credit from another university, transferring to another programme within ASU and access for students who do not meet the normal minimum entry requirements as indicated above. The Panel noted and found from the interviews that the policy is consistently implemented for BMIS.
- The admission criteria of the BMIS programme were reviewed based on recommendations of the BQA review in 2013 and new admission criteria were published. It was indicated in the SER that 'the programme team reviews the admission criteria periodically to identify cases where students who are not making satisfactory progress are failing to progress because of issues which may be related to lack of the prerequisite knowledge or skills on entry to the programme'. The Panel noted that the data on student performance is not disaggregated by student entry qualifications. Thus, it was not clear to the Panel that the performance of students could enable an appropriate review of the admissions policy. The Periodic Programme Review Procedure (PPRP) constitutes a formal review and includes a review of the admissions criteria taking into account feedback from internal/external stakeholders and national international standards. However, as student performance data

is not disaggregated, the PPRP is not able to adequately review the admissions policy. The Panel recommends that the BMIS should disaggregate student retention / progression / and completion data to enable an appropriate review of admissions policy.

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: Addressed

- ASU has a clear Human Resource (HR) Strategy to support its strategic plan. The ASU's HR Strategy is accompanied by several policies and procedures to recruit, induce, appraise, and promote academic staff. The Panel noted that the procedures for the recruitment, induction and appraisal are appropriate and conducted and monitored annually incorporating academic staff evaluation report, semesters' feedback from students once per semester, and evaluation by the line manager. The Panel also observed that the Academic Promotion Policy is clear and applicable to faculty who have been at their current rank for at least five years and in post at ASU for at least two years. The Panel observed all related evidence provided by the MIS Department on the implementation of recruitment, induction, appraisal and promotion and were found appropriate and showed a consistent and transparent implementation processes.
- There is a clear and detailed Research Policy to support the research aspect in ASU's strategic plan. The strategy for research is implemented through the Annual Operational Plan of the Deanship of Research and Graduate Studies, which includes all the collective research plans of ASU's Colleges. The Research Policy and Research Ethics Policy describe the policies and procedures related to research, funding, and ethical practices to encourage academic staff to produce high-quality research and to improve the university's research impact. CAS research is monitored through the College Operational Plan. The Research Plan of the MIS Department is included in the College Operational Plan and is aligned to the ASU's research plan with clear targets and KPIs. The Panel observed the published research of MIS faculty members in the last three academic years. The Panel identified that ASU has policies and procedures that ensure the quality of scientific research carried out by ASU faculty members, and its alignment with the research plan of the College and ASU. However, after reviewing the MIS faculty research in the last two academic years, the Panel noted that the majority of faculty research publications were published in open-access journals. The Panel, therefore, recommends that BMIS faculty members focus on conducting high quality research to promote the research aspect of ASU regionally and internationally. Faculty research focus would also enhance the research embedded in teaching BMIS students through sharing research insights and new trends in MIS.

- ASU has an Academic Staff Bylaw and Staff Handbook showing clear responsibilities of the academic staff in terms of teaching, community services, research and academics with administrative tasks. The weekly workload for academic staff is 45 hours per week distributed across teaching, research and community engagement activities and filled in the workload allocation model according to the academic rank per semester. The teaching load at ASU was categorised as follows: 9 credit hours per week (three courses) for Professors, 12 credit hours per week (four courses) for Associate Professors, 15 credit hours per week (five courses) for Assistant Professors and Lecturers. ASU reduces the teaching load by three credit hours for faculty members who are assigned an administrative role (Dean, Vice Dean, Head of Department (HoD) and Director).
- The Staff Handbook clearly indicates that the special needs of women have been considered with respect to maternity leave and compassionate leave for Muslim female employees on the demise of their husband. The Panel is satisfied with the academic workload of the MIS faculty members as it is in line with the Labour Law of the Kingdom of Bahrain, and it also considers the special needs of women.
- The MIS faculty team is composed of one associate professor, four assistant professors and one lecturer with specialisations in Information Systems and Management. The teaching staff to students' ratio is 1:18 as identified in the SER. The ratio is considered sufficient and meets the international standards. The qualifications and academic experience of the academic staff is also considered relevant to the MIS specialisation. The Panel noted during virtual interviews that the MIS Department has recruited a new faculty member in the rank of Professor with relevant academic experience in the field of MIS beginning of academic year 2020-2021.
- ASU has a Policy for Staff Development to promote the continuing professional development of academic staff. An annual professional development plan is set for academic staff's training needs, including professional development activities. This plan is set by the Academic Staff Development Unit based on the information received from the colleges through the annual monitoring and evaluation conducted at the college level. The activities related to academic staff development are evaluated by the academic staff themselves who identify the benefits, improvements needed and recommendations for the Academic Staff Development Unit. From interviews and the evidence provided, the Panel found that the arrangements, policies and procedures for identifying and supporting continuing professional development needs are considered suitable and that these are monitored and evaluated at the college and staff development unit levels.
- ASU has developed policies and measures identified in the HR Strategy and Retention Policy to attract and retain academic staff by creating suitable environment to progress and achieve their objectives. The Panel noted that the retention ratios in the MIS Department ranges between 60% - 100% in the last five academic years. ASU also monitors

staff retention and turnover through the staff satisfaction survey and the exit interview questionnaire. The Panel reviewed evidence and found limited evidence on the departmental analysis of the retention and turnover rates of MIS faculty members. The Panel advises the MIS Department to regularly assess the BMIS staff turnover and retention are to enable retention of highly qualified academic staff.

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: Addressed

- ASU has 54 classrooms, 11 laboratories, one auditorium (capacity: 290 students), one activity room, three prayer rooms, one clinic, one cafeteria (capacity: 186 students), one students activity centre, one student lounge, one sport field, and a car parking. There is free laboratory time available for all students posted on each laboratory door, which students can use to work independently or as groups on assignments and learning. From the campus tour video, the Panel noted that the classrooms and laboratories are adequate in terms of number and size for the available students and are appropriately equipped with the needed support. The utilisation of the classrooms, computer laboratories and e-learning resources are discussed at the department level with relevant action plans. The Panel appreciates the open access policy for laboratory uses when classes are not scheduled.
- The IT facilities available for MIS students include personal computers in laboratories, and higher specification facilities to support specialist applications. General software listed is appropriate to meet the requirements of BMIS such as MATLAB, Computer Aided Design (Autodesk Suite, Revit, 3D Max, and Maya), Financial Simulation Software, 3D printing and scanning. In addition, Moodle e-learning platform is also customised and integrated within the SIS. The Information Technology and Knowledge Management (IT & KM) Policy is appropriate. The Panel noted that there is no PC replacement policy, however, the suitability of PC hardware, software internet access and Wi-Fi was not raised as an issue by students during interviews. The Panel advises the ASU to consider developing a PC replacement policy.
- ASU library has a variety of resources, including subscriptions to ACM, Emerald, and EBSCO host databases. The library has 13,973 titles with a total of 30,720 books for different disciplines in both English and Arabic languages. Out of 13,973 titles, the library has 771 titles with a total of 1448 books for MIS specialization. Private study rooms equipped with computers are available and there are 20 computers available for students

at the library. The Panel is of the view that library physical and electronic resources and physical facilities are appropriate for the BMIS programme.

- The Procurement and Logistic Services Department at ASU oversees the physical infrastructure and ensures that all premises are maintained. Responsibilities of the Department includes maintaining the physical infrastructure and facilities. Servers and support system matters relating to premises, infrastructure and facilities are supervised by the Facilities Management Committee. The Directorate's Technical Support Unit is responsible for providing technical support and maintenance of computer hardware and accessories and for ensuring that the technical infrastructure remains current and fit for purpose. This Unit is also responsible for the design, maintenance and protection of the information and communication network, which uses high-speed fiber-optic lines to link the university computers and facilitate file-sharing and access to internal and external networks. The online portal system is also available for faculty and staff to submit maintenance requests. The Panel observed that ASU has mechanisms for maintaining resources to be adequate for the use of students and staff.
- A detailed Health and Safety Policy is set by ASU to guarantee a safe and comfortable working environment for all stakeholders. The policy includes safety rules and general guidance that are published throughout the campus and well communicated to stakeholders. An equipped clinic and a full-time nurse are available on campus. Health services and first aid are provided by the ASU nurse and health clinic facilities including a bed, wheelchair, stretcher, defibrillator, non-prescription medicine and a First Aid box on each floor of the academic and administrative buildings. These arrangements were verified through the campus tour video. The Panel noted that ASU conducts regular orientation on health and safety awareness to staff and students and this was confirmed during interviews with students and staff. Fire drills are also conducted every academic year in collaboration with the Civil Defence. The Panel appreciates the appropriate arrangements and wide array of activities organized to ensure the health and safety of staff and students at ASU.

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

- ASU maintains automated systems supported by IT&KM Department to store and analyse data related to students and staff, in addition to a special financial system that is managed and controlled by the Financial Affairs Department. The ASU Student Information System

(SIS) provides services related to academic advising, marks entry, grades curves, attendance sheets, and semesters' timetables. This system stores students' data, application information and grades and is linked with the accounting system. Access to personal information and to academic grades of students is restricted and only authorised staff have access to the SIS. This was evidenced through the site visit interviews and the Live Demo on electronic systems. The Panel appreciates the breadth, depth and integration of management information provided by the MIS at ASU to support well-informed decision making.

- Two tracking data and report systems were identified and used at the MIS Department. Those are the Moodle system showing students' usage and utilisation of the learning process activities and a tracking system available within the Library Information System to show the usage activities of the library e-resource. The Annual Facilities Evaluation questionnaire enables feedback on laboratory utilisation, however, the evidence provided did not demonstrate that this feedback was sufficient. The evidence provided on laboratories utilisation and minutes of meetings on analysing the utilisation reports of e-learning and e-resources do not show well tracking reports and discussion. The Panel concludes that some reporting on resource utilisation is available but could be improved so is regular discussion about resource utilisation by the senior management. The Panel suggests that the Department develops a formal regular review of resource utilisation to support decision-making by the senior management.
- The Admission and Registration Department is responsible for managing the SIS. Management of students' data and records is specified by procedures in the Admission and Registration Manual. Procedures for the administration of assessments in a secure and efficient manner are delegated to the College's Academic Standards and Examination Committee (ASEC), coordinated by HoD and supervised by the College Dean. Following the secure preparation and conduct of assessments, course instructors mark students' work (coursework and/or examination) and insert marks in SIS, following protocols detailed in ASU's Assessment, Moderation and Feedback Policy. The Panel learned during the virtual interviews that a grade sheet for each course must be printed out and signed by the instructor, HoD, Dean and Admission and Registration Director. The Admission and Registration staff follows documented manual and electronic steps to issue the BMIS certificates and transcripts after being verified by the MIS Department through the BMIS graduating students list. The identified security procedures of students' records and grades are maintained by the Admission and Registration Department through usernames and passwords as confirmed in the virtual site visit interviews. The Panel found clear policies and strict procedures to ensure relevant security measures of students' records, grades and changing students' grades with justifications and official approvals.
- The awarded BMIS certificates are issued by the Admission and Registration staff and confirmed based on the Admission and Registration Manual. The accuracy of issued

certificate is verified and maintained by a collaborative effort of both Admission and Registration Department and MIS Department. Students' averages are calculated by the SIS and manually based on the graduation list. The Panel reviewed BMIS certificates and transcripts and matched them with the approved Licensed Decree issued by HEC. The Panel confirmed that both certificates and transcripts are accurate and relevant in describing the achieved learning and issued on time to BMIS graduates.

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

- ASU has a Technical Support Unit with specialist employees to support IT facilities and provide support and guidance to both staff and students. The library has six employees available to give support to students regarding available library resources and e-resources. ASU also conducts students' induction that includes introducing students to available resources and a training session is given to students by the library staff on how to utilize the library resources to support their learning. All laboratories have technical staff available at all times during the study hours to support students and ensure that the laboratory is well maintained. Counselling services are provided to support BMIS students during their studies. The Panel requested extra evidence on students' support and physical and electronic resources available to students. The reviewed evidence confirmed to the Panel the suitability of students' services and support. The Panel was also satisfied with the library induction which was confirmed during the virtual interviews with students and alumni.
- ASU provides career guidance and counselling services to students through the Deanship of Student Affairs. The provided services are: Student and Counselling Services, Career Development and Alumni Affairs. The Career Development Office organizes an annual Job Fair and career-relevant workshops along with other activities. The provided services to BMIS students were found appropriate and verified further by extra evidence as well as through virtual interviews with students and alumni who expressed their satisfaction with the career guidance support provided by ASU.
- ASU makes several arrangements to support new and transferred students through conducting an induction/orientation day. These arrangements are well documented in the Student Orientation Guidelines. The orientation programme consists of a series of short sessions presented by senior specialised staff covering programme-related matters, key policies and procedures, IT services, administrative matters, student support services,

library and learning services, health and safety matters and concludes with questions and answer session and a tour at campus. During Covid-19 pandemic, a virtual orientation was given to new students and a virtual tour to the university campus and facilities was shown to them. BMIS students also attend a programme-based induction which introduces them to their College and programme-specific matters. The Panel is satisfied with ASU's arrangements for inducting newly admitted and transferred students through the induction day at both university and departmental levels.

- Academic advising is provided to students at the programme level through the Academic Advising Policy, which ensures effective measures to support student progress and provide appropriate academic guidance. The Policy stipulates the allocation to each registered student an academic advisor. The responsibilities of academic advisors are mainly administrative, including advising on pre-requisites, deadlines, reviewing grades, attendance and reviewing and confirming graduation students. The coaching and mentoring support are not shown through the SER. However, the extra evidence and the virtual interviews held with students and alumni showed a relevant advising support provided to BMIS students. Thus, the Panel is satisfied with the academic advising which supports students in achieving graduate attributes and learning outcomes.
- The provision of integration of women's needs, equality opportunities and students with special needs is well documented in the Equality and Diversity Policy and the Students with Special Needs Policy. The SER states that 'during the orientation programme, new students are informed in the presentation and *via* a questionnaire that they can declare a special need and seek support. Thereafter, emails are sent to all new students reminding them that assistance can be made available if they inform the Deanship of a special need or disability'. The Panel was able to confirm through the site visit interviews with students that there appropriate provisions are in place to integrate women's needs and ensure equal opportunities for both genders, and support students with special needs.
- ASU has a special policy for students at risk of academic failure, where the Advising and Direction Unit in the Admission and Registration Department and academic staff are cooperating to advice those students through SIS. ASU defines at-risk students as those with a CGPA of between 60% and 62% or students on probation as those with a CGPA below 60%. At-risk students are automatically identified by the SIS which places a warning in the student view of their record and in the academic advisor's view of advisee records. Academic advising processes are done online through the online advising system. It was indicated in the SER that BMIS students receive feedback from their advisors according to the at-risk students' follow-up reports. From the provided evidence and the virtual interviews, the Panel confirmed the suitability of the support provided to the at-risk students and, therefore, is satisfied with the monitoring system provided by SIS that ensures timely intervention for the benefit of BMIS students.

- ASU relies on collecting data from stakeholders through formal surveys. The collected data are evaluated and assessed through the ASU's Measurement and Evaluation Unit (MEU) according to the procedures identified in the Quality Assurance Manual. The analysed data are communicated to responsible staff at colleges and departments for further analysis and actions. The Panel notes that the questions in the new student experience survey, course evaluation survey, exit survey, alumni satisfaction survey, and employers' evaluation of graduates are generic, referring to a whole service and therefore unlikely to differentiate between specific aspects of services that require improvement, or the improvement cited would have been identified from the survey. The Panel recommends that the ASU should revise its surveys to enable more specific feedback on the provided support services to students to allow further analysis and improvement.

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: *Partially Addressed*

- ASU has a range of policies designed to specify the requirements needed to ensure that there are valid and reliable assessment methods appropriate for the programme. These include the Assessment, Feedback and Moderation Policy which provides a framework for effective, appropriate, fair assessment and moderation of assessment practice and the External Examiner Policy that describes the approach taken by ASU to ensure quality and standards of its awards. ASU employs course external examiners who review course assessments and programme external examiners who consider the programme as a whole reviewing assessment practice, programme content, organization, and management. The Panel notes that the policies are detailed and appropriate to provide a framework for providing reliable assessment and moderation. The Panel notes that these policies are being implemented rigorously and consistently for the BMIS programme.
- Having reviewed the assessments, the Panel observed that courses include a range of assessment including theoretical and design. However, while the assessment approaches are generally appropriate across the programme courses, it was concerning to note that in some cases, the assessed coursework in the third and fourth years of the programme was more focused on knowledge and understanding rather than higher-order skills. Furthermore, the examination questions were inappropriate for some higher-level courses (e.g., MIS312-1). The Panel recommends that the Department should rigorously review the assessments of the higher-level courses to ensure that they are appropriate for the level of the course. The Panel recommends that assessed work specifications are further scrutinized to ensure that all assessed work is at the appropriate level.
- The PILOs for BMIS are clearly stated in the SER and a mapping between the PILOs and graduate attributes and between the CILOs and PILOs was provided which the Panel considers appropriate for the programme. The Panel requested details of all course specifications and of the process used to ensure assessments are mapped to CILOs. This

was provided and the Panel was able to confirm that there is an appropriate mapping, and process for mapping CILOs to PILOs.

- The programme external examiners have a role in ensuring that graduate achievements meet the PILOs as part of the Programme Periodic Review process. The Employer Surveys and Alumni surveys provide evidence of stakeholder feedback relating to graduate achievement meeting the PILOs.
- The Assessment, Moderation and Feedback Policy provides a mechanism for monitoring the implementation of the assessment process. CAS provided examples of the policy in action through the moderation of assessments, and improvements to teaching and assessment, which are discussed at the department meetings. The Panel is satisfied that there is an appropriate process to monitor and improve the assessment process.

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: Addressed

- There are a range of policies at ASU relating to academic integrity. The Student Handbook includes a section on academic misconduct, including part of the Academic Misconduct & Plagiarism Policy and Examination Rules and Regulations. The Student Misconduct Bylaw also describes the types of plagiarism, the penalties and also includes details of the process followed when a suspected misconduct case is identified. The ASU Code of Ethics & Professional Conduct Bylaw identifies expected standards of ethical behaviour and good practice by staff. The Research Ethics Policy covers funded research projects, publications, book chapters, Masters and Undergraduate projects. ASU claims that students are made aware of academic misconduct through student induction sessions and wording included in the Programme Handbook and in assessment guidelines. The Panel confirmed during interviews that students understand what is meant by academic misconduct, the penalties and processes for dealing with it. However, the Panel found that there is no wording in the CAS Programme Handbook relating to the penalties of academic misconduct nor is plagiarism awareness covered in the assignment guidelines of all courses. The Panel suggests that wording relating to the penalties of academic misconduct is added to the CAS Programme Handbook and assignment guidelines.
- The Panel found evidence of processes for deterring academic misconduct which include information provided in induction sessions, and information provided in all courses. During interviews, academic staff indicated that they remind students in classes of the

consequences of academic misconduct. The College Disciplinary Committee is responsible for hearing academic misconduct cases and there is evidence of consistent implementation of the processes for dealing with academic misconduct through submission of cheating forms by exam invigilators and of disciplinary hearings.

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: Partially Addressed

- ASU has adopted an e-moderation process for both internal and external moderation of assessments. The Panel noted feedback requesting changes to a paper-based moderation and that changes were made. The Panel requested evidence that the process is used for internal and external verification of both examinations and students' coursework. The Panel found that e-internal moderation takes place and includes specific requirements for the moderator to evaluate various aspects related to the quality and content of the examination papers. For external and post moderation, the Panel were provided with evidence of e-moderation forms requiring a tick box and comments be completed for identified criteria.
- The internal moderators for CAS courses are selected by the HoD or programme coordinator at the beginning of each semester based on the moderators' relevant teaching or research experience. The moderators are expected to provide recommendations for improvement. However, the Panel noted that in some cases internal moderation is undertaken by non-specialist academic staff as for example, the internal moderator for final examination of the E-Business (MIS 361) course, which was conducted by a staff member specialized in E-Government. Therefore, the Panel recommends that the BMIS should ensure that moderation be conducted by academic staff specialized in the same area of specialization.
- The Panel learned from interviews that the BMIS programme has not implemented double marking and that the CAS post moderation process is in line with the University policy on post moderation, which does not include double marking as a compulsory requirement. The Panel suggests that ASU consider including double marking as a compulsory element of the post moderation process to ensure fair, consistent and accurate marking of assessments and that 'blind' double marking is considered for inclusion as a compulsory element of the post moderation process by ASU.
- The contents of e-internal moderation as described above demonstrate the opportunity to contribute to the fairness and consistent assessment of students and to the improvement

of courses. There is a limited opportunity for internal moderation to contribute to improvement of the programme as a whole, except through maintenance of standards of the course components. The Panel noted that on balance internal moderation contributes appropriately to the assessment of the programme.

- CAS claims that the moderation process is monitored by the College Examinations and Standards Committee. The Panel found evidence of the Terms of Reference (ToR) for this committee and of the committee's meeting, discussing staff preparedness for submission of final examinations and of ensuring CILOs were met as specified on the course specifications. CAS also claims that the internal moderators are assessed annually by completing a form summarizing the monitoring process. However, as noted under Indicator 3.1, some of the examination questions were inappropriate for higher-level courses. Hence, the Panel recommends that CAS should assess the effectiveness of the programme's internal moderation process to further ensure the appropriateness of assessments and fairness of grading.
- External moderator nominations are evaluated by the Department Council and choices are forwarded to the College Examinations and Academic Standards Committee, the Teaching and Learning Committee and University Council for approval, as defined in the External Examiner Policy. The Panel notes that the formal processes are appropriate to provide external moderation at a course and programme level and for the selection of external moderators. External moderators are appointed either to review courses for fairness, consistency or to review and support improvements to the programme. There are currently seven course external moderators and two programme external examiners. The Panel notes that this provides the opportunity of good coverage of subject expertise across the course external moderation team to support the BMIS programme. The Panel notes that all course external examiners are currently from the same institution. The Panel advises the MIS Department to select external moderators from different institutions rather than from one institution so as to benefit from a variety of experiences and systems.
- External moderation includes a specific requirement to assess the quality of the examination questions to ensure that the questions cover the course contents and linked to the appropriate CILOs. The Panel observed that the procedures ensure consistent and fair assessments and supports improvements to the programme.
- In the SER, CAS claims that the moderation process is monitored by the College Examinations and Standards Committee. The Panel was provided with supporting evidence of the operations of the Committee. The Panel notes that external moderators are assessed annually by completing a form summarizing the monitoring process. The Panel was satisfied that the Committee provides an effective process for monitoring of assessment. The College Head of QAA Unit has responsibility for ensuring that the moderation process is conducted appropriately. CAS claims that the Head of QAA

conducts an audit every semester and that QAAC conducted an audit of the moderation process in 2020/21. Evidence was provided to clarify the process and the cycle of the process.

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: Addressed

- ASU has an Internship Policy which is designed to ensure that all students take a minimum 120-hour internship, integrated with the students' academic learning to enable them to perform meaningful activities with proper supervision. The Internship Policy includes procedures to identify appropriate internships, allocate students to internships, announce internships to students, specify attendance requirements of the students, and the evaluation of the internship once completed. Forms identified to be completed as part of the procedures include the initial intern information, employer approval, daily intern report, student feedback on the internship, site visit, and industry supervisor evaluation. The Panel notes that procedures identified are detailed and complete.
- The roles and responsibilities of the key stakeholders from ASU are defined in the Internship Policy. The Head of Internship Unit has responsibility for preparing an annual internship plan, identifying appropriate organisations for internships, scheduling, monitoring and evaluating interns and completing an annual internship report. The academic supervisor has responsibility for working with the industry internship supervisor and ASU Head of Internship Unit, meeting students prior to the internship, visiting, assessing and evaluating interns and ensuring that the internship is appropriate for the intern. The internship employer and industry supervisor have responsibility for meeting health and safety regulations, providing an induction programme and ongoing supervisory support and training for the interns and evaluating them on completion of the internship. The student has responsibility for attending regularly and punctually, following the health and safety regulations, employer and university rules, recording daily work tasks, and completing internship administrative and assessment processes. The Panel noted from interviews, that the roles and responsibilities are clearly defined and communicated to relevant stakeholders.
- The CILOs described in the internship course (MIS462) specification are mapped to PILOs in the programme specification. The assessment criteria for the course are mapped to the CILOs and the intern's employer contributes to the assessment of skills in the PILOs. The Panel notes that the CILOs contribute effectively to the achievement of the BMIS PILOs.

- The internship is assessed with five components, including an intern employer evaluation, activity report, attendance report, student report and a student presentation. The assessment is conducted by the industry supervisor, academic supervisor and members of the College Trainee Performance Committee. During the site visit virtual interviews, the Panel noted that the interns' employer evaluation is moderated by the academic supervisor and that consistent implementation of the internship course is assured through oversight by the Head of the Internship Unit and the Course Evaluation Report (CER) process. The Panel appreciates the rigorous implementation and effectiveness of the internship course implemented by ASU for BMIS students.
- The Internship is evaluated by students and the evaluation covers the Internship course, the industry supervisor and the internship employer. There is also feedback by the industry supervisor covering attendance, completion of assigned tasks, communication skills and use of technology and responsibility / decision making. The Internship course is reviewed annually using the annual CER process to ensure that it is operating effectively and contributing to programme aims. An actioned recommendation for improvement was noted by the Panel. The Internship Unit was audited in AY 2018-2019 by QAAC. The Panel notes that arrangements for evaluating the effectiveness of the internship are appropriate and effective.

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: Addressed

- The BMIS capstone project course (MIS464) is designed to enable students to apply appropriate research methodologies to develop either a software application or a research report. Students can work either individually or in teams to reach the project objectives. The Panel was concerned to note from the course specification CILO d2 that a team project is available for students studying a final year capstone project course, however, this was clarified based on the evidence provided that all students submit individual assignments for the course. The Panel suggests that the course specification is clarified with respect to the type of the assignment required (a team or individual assignment). The course specification maps the CILOs to BMIS PILOs and confirms that the capstone project contributes to all PILOs. The Panel noted that the CILOs do contribute to PILOs, for students developing a detailed research report. However, for students implementing a software solution to a problem, it was not clear that implementation-focused CILOs are included nor how the research-focused CILOs, such as b2 could be met. The Panel

recommends that the MIS should review the capstone project course specification to clarify whether the students take an implementation- based or research-based project and to clarify CILOs relating to research reporting and / or implementation. The Panel requested a range of top / middle and bottom graded projects and reviewed evidence provided of sample projects. The Panel noted that projects supplied as evidence are all graded at over 80% and are of an appropriate standard for a Bachelor's degree.

- Supervisor and student roles and responsibilities are defined in the General Guidelines for Applied Research in MIS. CAS claims in the SER that these guidelines are circulated to all academic staff supervisors prior to the start of the project. During the site visit interviews, the Panel confirmed that students understand their role and responsibilities. The Panel notes, however, that the guidelines to academic supervisors are focused on students taking a scientific report project route and not a software implementation route and advises CAS to revise the guidelines to include both routes.
- Students are assigned a project and an academic supervisor. The supervisor works with the student to determine the 'right' project for the student. The Panel was provided with evidence showing a sequential list of presentations by students. A review of additional evidence revealed that there are regular weekly meetings between the student and supervisor and that these meetings included setting next targets to be met and that these meetings are recorded as evidence to support assessment decisions. During the mid-term examination period, project students submit a mid-term review report summarizing progress, objectives and problems encountered. CAS claims in the SER that students are able to feed back on their satisfaction with the supervision process through the CER. However, the Panel noted that the CER does not provide evidence of student feedback. The Panel requested further evidence of student feedback and found that students are surveyed for all courses, that there is an opportunity to comment and that the results are analysed. As there were no negative comments reported, it was not possible to see actions identified and followed up.
- There is a clear rubric for the assessment of the capstone project (MIS464). Students presents their project to two project assessors. Each assessor assesses the project independently. CAS claims in the SER that assessment forms are collected, and the student awarded the average of the marks of the two assessors. The Panel observed that this process is consistently implemented. The external examiner is expected to comment on the quality and standard of the project. The Panel confirmed from interviews with the external examiners that projects are at a standard comparable with national and international similar programmes.
- The SER claims that students have the opportunity to feedback on the supervision of the project. As indicated above, the Panel was able to confirm that students are able to feedback on the MIS464 course and that this feedback is monitored. CAS claims in the SER

that the project supervisor provides feedback on the project by preparing a CER. The Panel noted that this is not a CER, but it is a student assessment report. The SER also claims that the programme external examiner comments on the course, under the headings project level, appropriateness to the programme learning outcomes achievement. The Panel noted that the evidence provided is not evidence of an external examiner feedback. Further evidence was requested, but it did not clarify the position. The Panel acknowledges the CER process for course reviews but suggests that processes for staff monitoring and reviewing MIS464 are reassessed.

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: Addressed

- The BMIS programme uses a mapping of all course assessments to CILOs and CILOs to PILOs, together with mapping the programme against the NQF level descriptors, as mechanisms to ensure that students have appropriate knowledge, skills and abilities on graduation. In addition, external examiners are used to ensure that student achievements are appropriate to the level of the course and programme, and comparable with equivalent institutions. Assessments from a range of courses at different levels were provided to the Panel to enable an evaluation of the level of achievement at different stages of the programme. As noted under Indicator 3.1, the assessment approaches are generally appropriate across the programme courses and reflects the students' ability to create and innovate.
- ASU claims in the SER that the BMIS programme's admission and retention rates are appropriate in comparison with other programmes at ASU. The Panel notes that admissions data and comparisons are not shown in the SER. Retention appears to be very good, with BMIS achieving at least 98% retention in each of the previous five academic years (2016-2021). However, there is no definition of retention included nor is retention for each level of the programme included. Progression data is not included nor the length of time it takes students to complete the programme. The Panel requested this evidence. Having reviewed the evidence provided, the Panel noted that the statistics provide number of students not percentages and that retention does not appear to match the retention claimed in the SER, with one or two students not being retained per year from an initial cohort size of (usually) 19-22. Nevertheless, the Panel noted that the retention rates are good. Cohorts such as that of entry 2017-2018, showed 13/18 (72%) students took an extra year to complete their study which is a high non-completion rate by the cohort. The Panel considers that the data used for cohort analysis of retention, progression and completion are insufficient to enable adequate cohort monitoring and evaluation. The

Panel recommends that CAS should improve the cohort analysis to enable adequate cohort monitoring and evaluation.

- The SER claims that of 25 BMIS graduates in AY 2019-2020, 36% are employed. A table of graduate destinations contradicts this, indicating that 80% are employed. Progression data is not provided, and some requested evidence was not available. CAS clarified that 46% of graduates are employed. Having reviewed the evidence, the Panel noted that employment rates are falling and 36% for the latest cohort is very low. The Panel noted from interviews with academic staff that suggestions to update the curriculum content in view of employment rates have been acted upon but not yet approved.
- The Graduate Employer Survey shows a very high satisfaction levels amongst employers of BMIS graduates. The employer average score across all questions was 4.9 out of a maximum score of 5, which was the highest of recorded scores in CAS. All employers of BMIS graduates for AY 2019-2020 were contacted, with nine responding. The Panel requested evidence of exit surveys and having reviewed the evidence, it is noted that the results for BMIS were generally lower than most other programmes in CAS, but still acceptable. The Alumni Survey shows 631 responses, including 379 from CAS. It was not stated how many respondents were from BMIS. Responses are shown for each programme and in comparison, to other programmes in the College and comparison between colleges. For BMIS the average score was 4.49/5 with a distribution of 4.19-4.75. These scores are the highest in the College and represent high satisfaction amongst alumni.

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: Addressed

- The purpose of ASU Policy for the Development and Review of Policies and Procedures is 'to establish a consistent and enforceable system for the development, approval, implementation and review of policy documents at the Applied Science University'. All ASU policies and procedures are subject to systematic review at most every two years. Currently, ASU has 24 Academic Policies and 24 Administrative Policies, and the latest revision was for the External Examiner Policy. The Panel is of the view that ASU has several appropriate policies that serve the needs of the programme, and which are communicated to its stakeholders through its website and Knowledge Hub and their effectiveness was confirmed during the virtual interviews.
- Management of quality assurance at the college level is carried out by the Quality Assurance and Accreditation Unit (QAAU). The chair of this unit is the Vice Dean and each programme within the college is represented by the programme coordinator. College QAAU operates in coordination with the QAAC as evidenced by the discussion on the incorporation of QAAC's remarks in the APRR prepared by the College. The Panel noted that there is a clear quality assurance management system for the programme which is consistently implemented, but recommends that ASU should ensure that key documents are provided in both languages, Arabic and English, for Arabic and non-Arabic speaking staff and students.
- The QAAC prepares a comprehensive annual quality assurance and accreditation report, which includes monitoring of the performance of all programmes within the College through the submitted APRR. In their report of AY2019-2020, the QAAC reviewed the ASU's policies and required their implementation in the college's APRR. An example of this review is the minor changes made in the Monitoring and Review of Programmes Policy concerning the inclusion of the role of the Department Curriculum Committee in the approval of APRR.

- The programme orients its academic and support staff about quality assurance requirements through ASU's internal portal and workshops. After reviewing the content of the workshops for academic staff (conducted in AY2020-2021), the Panel noted that ASU conducted 91 workshops that encompassed a variety of training sessions including quality assurance for online education. The Panel is of the view that academic and administrative staff are provided with appropriate support to ensure an understanding of quality assurance and its importance to the institution.
- One of the objectives of the CAS Operational Plan for AY 2020-2021 is to coordinate with QAAC for the preparation of the BMIS programme review according to BQA requirements. The evidence provided shows that QAAC has achieved this objective. Continuous evaluation of the quality assurance management system at the college level and identification of areas that need improvement is evident in the QAA Annual Report for AY 2019-2020 that was prepared by the QAAC. For example, the report highlights quality assurance-related accomplishments and identified areas for improvement such as, enhancing connection and communication with College QAAU.

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: Addressed

- The organizational chart of ASU indicates appropriate flow / lines of reporting within ASU at department, college and university levels. At institutional level, the College Council reports to the Vice President of Academic Affairs and Development, who in turn reports to the University Council. Furthermore, within the college, the management of the programme is represented by Department Council which reports to the College Council. The evidence provided reflects effective lines of communication and decision making between Department and College Councils. It also shows that the meetings of the Department and College Councils are held on regular basis to discuss issues of concern at both levels, such as review of BMIS study plan for AY 2020-2021 and promotion of academic staff.
- The ToR for all administrative posts and committees are clearly provided in the ASU Committee Terms of Reference Booklet and Quality Assurance Manual. The Booklet details the responsibilities, memberships, meetings frequency for academic governance committees as well as for management committees. Similarly, the Quality Assurance Manual clearly details the ToR for all management posts, such as QAAC staff. Adherence to the ToR is evident in the formation of committees at the department level.

- At ASU there is clear hierarchy for academic responsibility that ensures adherence to the academic standards. ASU Quality Assurance Manual details the responsibilities for various levels of the university's academic structure, such as the University Council, College Council, Department Council, programme team, programme coordinator, course coordinators and faculty members. The Panel notes that both the Quality Assurance Manual and the Committee ToR Booklet emphasize the same academic responsibility and maintenance of academic standards. For example, both indicate that the responsibility of the University Council is to 'oversee all issues related to quality of teaching and learning, research, community engagement'.
- The BMIS programme is managed by a programme coordinator whose role is clearly described in Quality Assurance Manual. Adherence to the role of the programme coordinator is clear from the evidence provided in relation to department and college council meetings. The SER mentions that the job description of the programme coordinator in the Job Description Handbook is taken from that in the Quality Assurance Manual. However, upon inspection, the Panel found that the two descriptions differ in content, hence, the Panel advises the College to amend the job description of the programme coordinator in the Job Description Handbook.

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: Addressed

- Besides the preparation of CERs at the end of each semester, a comprehensive APRR is prepared by the programme coordinator and submitted to the College QAAU for discussion and approval before being sent to the QAAC in line with the Monitoring and Review Policy of ASU. Recommendations for improvement at both college and programme levels, are evident in the QAAC report, such as the placement of the programme on the NQF, revision of the programme specification and developing a study plan based on the recommendations of the external examiners and PAB.
- The APRR provides an account about progress related to the degree of achievement of previous year's action plan. For example, in the APRR action plan of AY 2018-2019 an update of the course specification was identified, which was accomplished in AY 2019-2020, whereas the APRR AY 2019-2020 action in progress identified 'to develop and implement a formal mechanism for continuous scoping of the labour market needs', which was included and achieved in the APRR action plan of the following year AY 2020-2021. Furthermore, the programme coordinator together with the programme committee

members collect all recommendations about any change required or proposed improvements to courses from the CERs and prepare an action plan. For example, in their meeting in May 2021, one of the actions proposed for next semester is to update the course specifications and include more formative assignments and case studies. The Panel is satisfied with mechanisms in place for monitoring the implementation of the recommendations for improving the programme and courses.

- Part of ASU Monitoring and Review Policy includes procedures for programme monitoring which outline the steps to be followed by the programme in the preparation of the annual and periodic reviews' reports. Two aims are identified for the monitoring and evaluation of the programme. The first aim is to ensure the quality of the delivered programme and the second aim is to ensure the involvement of stakeholders in improving the programme. According to the SER, the Monitoring and Review of Programmes Policy requires the College to prepare a 5-years Periodic Programme Review Report (PPRR). Based on the evidence provided, the Periodic Review Panel prepares the PPRR using multiple sources, such as the APRR and Programme Reflective Analysis Report (PRAR). The PRAR provides an in-depth analysis of the performance of the programme highlighting its strengths and weaknesses, as well as a providing a summary of the external examiners' review reports and benchmarking activities.
- Feedback from internal and external stakeholders such as students, alumni, external examiners is collected by the programme team and included in the APRR. As mentioned above, both PRAR and APRR are integral elements of the PPRR, which provides comprehensive evaluation of the performance of the programme over a 5-year period.
- The follow-up on the implementation of the programme's periodic reviews and related improvement plans is the responsibility of QAAC which prepares QAA Annual Reports. For example, the report for AY 2019-2020 confirmed that BMIS programme revised its programme specification and study plan based on the recommendations of external stakeholders. The Panel considers that the mechanisms in place to ensure implementation of BMIS periodic reviews improvements plans are appropriate.

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: Addressed

- The BMIS programme is benchmarked against one local and two regional universities in terms of admission criteria, programme structure, curriculum content and course

specification. The design of the programme takes into consideration international standards, such as the Association to Advance Collegiate Schools of Business (AACSB). Internally the programme is benchmarked against the Computer Science Programme offered by ASU. The Panel noted the comparability of academic standards of the programme with programmes offered locally, regionally and internationally.

- According to the SER benchmarking of the programme with other institutions provided the needed assistance and guidance to conducting a comprehensive revision of the BMIS programme which included revising the PILOs and CILOs. The Panel is of the view that the outcome of the benchmarking exercise was beneficial and effectively utilized in the development of the-revised programme which was implemented in the AY 2020-2021.
- At ASU, the MEU is established within QAAC to administer, analyze and interpret results of surveys to all of the university's stakeholders. The evidence provided and interviews conducted confirm that surveys are regularly undertaken involving various groups of BMIS stakeholders, such as student satisfaction surveys, exit surveys for graduating students, alumni surveys and employer surveys.
- The SER indicates that, the BMIS prepares APRR in which the results of the surveys are analyzed and used for decision making. For example, in the APRR for the AY 2019-2020, analysis of the feedback from external examiners revealed the need to perform benchmarking with information systems international bodies. Based on this comment, the programme was benchmarked against the AIS model in 2020 and key improvement areas were highlighted. Furthermore, PAB indicated their satisfaction with the new study plan and the introduction of new courses that enhance the preparedness of the graduates to join the labour market.
- The BMIS programme follows processes needed to implement improvements in its curriculum as per the ASU Programme Review and Monitoring Policy. The programme team prepares the APRR and indicates progress made for achieving the action plan of the previous year. An example of this is the updating of the course specification, which was endorsed by the programme's external examiners. The APRR is then discussed and approved at relevant committees at the college level, such as College QAAU, PAB and Department Council and then forwarded to the QAAC. The Panel considers that there are mechanisms in place to implement recommended changes as evidenced for example by the College QAAU's approval of the APRR's incorporation of the recommendations put forward by the QAAC.
- Improvements to the programme are disseminated to staff members and stakeholders *via* several channels, including the meetings of the Department Council and PAB. Information on improvements made to the programme is also shared through meetings held with students and employers. The evidence provided indicates that PAB members are kept informed about areas where their feedback is implemented. Likewise, students indicated,

during the virtual interviews, that they are aware of the improvements made to the programme as they have representation in both the College and Department Councils. Moreover, interviews with internal and external stakeholders confirmed that the BMIS programme collects feedback from them through surveys and annual meetings. Results of surveys are compared over time to measures degree of satisfaction of the stakeholders with changes made to the programme based on their feedback.

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: Addressed

- The roles and responsibilities of PAB are detailed in ASU Committee ToRs. The ToR are clear and cover the authority of constitution, remit, responsibility, membership, frequency of meeting and reporting. The current PAB meets the required ToR especially with respect to responsibility and membership since it has five external and four internal members. The Panel notes that the responsibilities of the PAB stated in the SER are different from those documented in the ASU's Committee ToR. The Panel also notes that the PAB Policy was approved in 2015 and has not been reviewed since then, further, that the Policy refers in places to the Industrial Advisory Board instead of PAB. The Panel advises the ASU to ensure that the Policy is reviewed regularly for accuracy of the Advisory Board name/title.
- As mentioned above in Indicator 4.4, feedback from PAB is incorporated in the development of the revised BMIS programme. Minutes of PAB's meetings revealed that the programme implemented their recommendation to offer diversified topics as part of the Applied Research course.
- From the evidence provided, the Panel noted that BMIS programme utilizes feedback from its stakeholders to ensure the appropriateness of the programme to the needs of the labour market, the economy and society. Data from the alumni satisfaction survey together with that of the employers' satisfaction survey reflects the preparedness of the graduates to join the national workforce.
- The reviewed evidence shows that local, regional and international studies such as reports of the Tamkeen Market Gap Study, the recent Bayt.com, Middle East Job Index survey and the QS global skills gap report are used to assess and ensure the relevancy of the BMIS programme. The objective of these studies is to determine the labour market needs and hence help ensuring the relevance of the programme and preparedness of the BMIS programme's graduate to join the workforce. For example, the QS global skills gap report emphasized skills needed in graduates by employers such as problem- solving and

communication skills which the BMIS discussed and ensured that they are reflected in the programme ILOs and highlighted in PAB meetings with regard to employers' evaluation of BMIS' graduates.

- From the evidence provided and the virtual site visit interviews, the Panel confirmed that there are mechanisms in place to ensure that the programme meets the labour market and societal needs. These mechanisms include feedback collected from stakeholders, such as employers and alumni through surveys which reveal high satisfaction of 4.9 and 4.49 out of 5, respectively. In addition, the APRR provides a useful tool for monitoring and reviewing the implementation of BMIS action plan which included 'develop and implement a formal mechanism for continuous scoping of the labour market needs'. Also, PAB's meetings discussed the employability of the graduate and indicated the increased demand for IT skills due to the huge shift to online business because of the Covid-19 pandemic.

V. Conclusion

Taking into account the institution's own self-evaluation report, the evidence gathered from the virtual interviews and documentation made available during the virtual review, 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 Management Information Systems offered by the College of Administrative Science of the Applied Science University.

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

1. The open access policy for laboratory uses when classes are not scheduled.
2. The appropriate arrangements and wide array of activities organized to ensure the health and safety of staff and students at ASU.
3. The breadth, depth and integration of management information provided by the management information systems at ASU to support well-informed decision making.
4. The rigorous implementation and effectiveness of the internship course implemented by ASU for students on Bachelor in Management Information Systems.

In terms of improvement, the Panel recommends that the Applied Science University and/or the College of Administrative Science should:

1. Review the programme aims with respect to meeting the Research Mission of Applied Science University.
2. Revise the Programme Development and Review Processes to include the mapping of aims to Mission and Strategic Goals and to ensure the alignment of the learning outcomes to the programme aims.
3. Revise the maximum student's load in the first and second semesters so that it should not exceed 18 credit hours (six courses) to enable students to adjust to the higher education environment.
4. Review the Bachelor in Management Information Systems programme with respect to the balance between theory and practice and the inclusion of recent significant subject areas within Management Information System to ensure that students are given appropriate knowledge and practical skills to support their future employment.
5. Update the textbook collection and course specification booklists to enable students and staff members to access recent published articles in the specialization for teaching and research purposes.

6. Develop a more detailed College-specific Learning, Teaching and Assessment Strategy, and an implementation and monitoring plan that take into account the recent developments in teaching and learning.
7. Review the English entry requirements to ensure comparability between entry to Bachelor in Management Information Systems through IELTS / TOEFL and the Oxford Online Placement Test.
8. Benchmark results for remedial English courses against international standards, such as IELTS, to ensure comparability of English assessment.
9. Disaggregate student retention / progression / and completion data to enable an appropriate review of admissions policy.
10. Focus on conducting high quality research to promote the research aspect of Applied Science University regionally and internationally.
11. Revise Applied Science University surveys to enable more specific feedback on the provided support services for students to allow further analysis and improvement.
12. Rigorously review the assessments of the higher-level courses to ensure that they are appropriate for the level of the course.
13. Scrutinize the assessed work specifications further to ensure that all assessed work is at the appropriate level.
14. Ensure that the internal moderation is conducted by academic staff specialized in the same area of specialization.
15. Assess the effectiveness of the programme's internal moderation process to further ensure the appropriateness of assessments and fairness of grading.
16. Review the capstone project course specification to clarify whether the students take an implementation- based or research-based project and to clarify the course intended learning outcomes relating to research reporting and / or implementation.
17. Improve the cohort analysis to enable adequate cohort monitoring and evaluation.
18. Ensure that key documents are provided in both languages, Arabic and English, for Arabic and non-Arabic speaking staff and students.