香港學術及職業資歷評審局
Hong Kong Council for Accreditation of
Academic & Vocational Qualifications

ACCREDITATION REPORT

THE HANG SENG UNIVERSITY OF HONG KONG

LEARNING PROGRAMME RE-ACCREDITATION

BACHELOR OF MANAGEMENT SCIENCE AND INFORMATION MANAGEMENT (HONOURS)

BACHELOR OF SCIENCE (HONOURS) IN DATA SCIENCE AND BUSINESS INTELLIGENCE

MARCH 2024
(RE-ISSUE IN SEPTEMBER 2024)

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1. TERMS OF REFERENCE

1.1 Based on the Service Agreement (No.: AA948), the Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ), in the capacity of the Accreditation Authority as provided for under the Accreditation of Academic and Vocational Qualifications Ordinance [AAVQO (Cap. 592)], was commissioned by The Hang Seng University of Hong Kong (the Operator) to conduct a learning programme re-accreditation exercise with the following Terms of Reference:

a) To conduct an accreditation test as provided for in the AAVQO to determine whether the Bachelor of Management Science and Information Management (Honours) and Bachelor of Science (Honours) in Data Science and Business Intelligence programmes of the Operator meet the stated objectives and QF standards and can continue to be offered as accredited programmes; and

b) To issue to the Operator an accreditation report setting out the results of the determination in relation to a) by HKCAAVQ.

2. HKCAAVQ'S DETERMINATION

2.1 HKCAAVQ has determined that the Bachelor of Management Science and Information Management (Honours) **(**BMSIM**)** and Bachelor of Science (Honours) in Data Science and Business Intelligence **(**BSc-DSBI) programmes meet the stated objectives and QF standard at Level 5 and can continue to be offered as accredited programmes with a validity period of five years.

2.2 Validity Period

2.2.1 The validity period will commence on the date specified below. Operators may apply to HKCAAVQ to vary the commencement date of the validity period. Applications will be considered on a case-by-case basis.

2.3 The determinations on the BMSIM and BSc-DSBI programmes are specified as follows:

Name of Operator	The Hang Seng University of Hong Kong 香港恒生大學	
Name of Award Granting Body	The Hang Seng University of Hong Kong 香港恒生大學	
Title of Learning Programme	Bachelor of Management Science and Information Management (Honours) 管理科學與資訊管理（榮譽）學士 ***see Remarks***	Bachelor of Science (Honours) in Data Science and Business Intelligence 數據科學及商業智能學（榮譽）理學士
Title of Qualification (Exit Award)	Bachelor of Management Science and Information Management (Honours) 管理科學與資訊管理（榮譽）學士 ***see Remarks***	Bachelor of Science (Honours) in Data Science and Business Intelligence 數據科學及商業智能學（榮譽）理學士
Primary Area of Study and Training	Business and Management	Sciences
Sub-area (Primary Area of Study and Training)	General Business Management	Mathematics and Statistics
Other Area of Study and Training	Computer Science and Information Technology	Business and Management
Sub-area (Other Area of Study and Training)	Computer Science and Information Technology	General Business Management
Industry	Not Applicable	
Branch	Not Applicable	
QF Level	Level 5	
QF Credits	579	538
Mode of Delivery and Programme Length	Full time, 4 years	
Intermediate Exit Award	Not Applicable	

Start date of Validity Period	1 September 2024	
End date of Validity Period	31 August 2029	
Number of Enrolments	One enrolment per year	
Maximum Number of New Students	Year 1 Entry – 65 per year Year 3 Entry – 25 per year	Year 1 Entry – 70 per year Year 3 Entry – 30 per year
Specification of Competency Standards-based Programme	☐ Yes ☑ No	
Address of Teaching Venue	Hang Shin Link, Siu Lek Yuen, Shatin, New Territories	

Remarks: Subject to the approval from CE in Council, the programme and award titles will be changed from Bachelor of Management Science and Information Management (Honours) 管理科學與資訊管理（榮譽）學士, to Bachelor of Science (Honours) in Business Analytics and Information Management 商業分析與資訊管理（榮譽）理學士, starting from AY2025/26. The first group of students enrolled in the BSc-BAIM programme will graduate in AY 2028/29.

The following abbreviations are used throughout this report:	
BMSIM	Bachelor of Management Science and Information Management (Honours)
BSc-DSBI	Bachelor of Science (Honours) in Data Science and Business Intelligence
BSc-BAIM	Bachelor of Science (Honours) in Business Analytics and Information Management

2.4 **Recommendations**

HKCAAVQ presents the following recommendations for continuous improvement of the Programmes.

<u>For Both Programmes</u>

2.4.1 The Operator should review and strengthen the mechanisms of reviewing and updating the recommended texts and references with rigour. (Para. 4.3.3)

For BMSIM

2.4.2 The Operator should enhance the support for professional development among part-time teaching staff, such as OBTL, and actively involve them as members of the programme team. Furthermore, efforts should be made to ensure their ongoing engagement in industrial practice to keep them up-to-date. (Para.4.5.3)

2.4.3 The Operator should increase the emphasis on programming in the first two years of the degree to lay a stronger foundation for students, including reviewing the use of Java in introductory modules and strengthening students' general IT literacy. (Para.4.3.5)

2.4.4 The Operator should formalise the precise duties of the module external examiners (EEMs) in terms of modules and assessments to be moderated at the time when a new EEM is appointed to provide greater clarity. (Para.4.7.2)

For BSc-DSBI

2.4.5 The Operator should limit the term of service of external examiners to one extension, i.e., six years maximum, to ensure that they are able to remain detached and independent. (Para.4.7.3)

2.5 **Advice**

HKCAAVQ also offers the following advice for continuous improvement of the Programmes.

For Both Programmes

2.5.1 The Operator is advised to consider using school or university committees and staff development events as platforms to share good practice. (Para.4.6.4)

2.5.2 The Operator is advised to review the existing support available for students entering the programmes with lower mathematical abilities, as a stronger foundation in mathematics is increasingly becoming important in these discipline areas. (Para. 4.2.5)

2.5.3 The Operator is advised to ensure that the liberal and professional education of the HSUHK programmes continue to emphasise the desired graduate attributes and develop soft and transferrable skills to avoid graduates' becoming vulnerable to rapid technological change. (Para.4.3.4)

2.5.4 The Operator is advised to extend the mentorship scheme to provide

students with more opportunities to learn from business mentors, possibly by leveraging the alumni network. (Para.4.6.6)

For BMSIM

2.5.5 The Operator is advised to consider formalising the professional development opportunities for new staff, and possibly requiring existing staff to undertake a minimum number of hours of continuous professional development each year. (Para.4.5.4)

2.5.6 The Operator is advised to consider promoting internships more actively when they are not mandatory. (Para.4.6.7)

2.5.7 The Operator is advised to consider increasing the number and range of companies/industrial site visits to enrich students' learning experience. (Para.4.4.5)

2.5.8 The Operator is advised to consider engaging the alumni more actively in terms of mentorship and internship offerings to current students, as well as providing advice to the programme team on curriculum adjustments. (Para 4.6.6)

For BSc-DSBI

2.5.9 The Operator is advised to consider putting departmental support into sourcing and overseeing service learning and social engagement projects. (Para.4.5.6)

2.5.10 The Operator is advised to consider offering one-year, part-time internships to increase the availability of internships for students. (Para.4.6.8)

2.5.11 The Operator is advised to consider increasing the frequency of the Programme Advisory Committee Meeting, now once a year, to a more frequent schedule. (Para, 4.7.7)

2.6 HKCAAVQ will subsequently satisfy itself on whether the Operator remains competent to achieve the relevant objectives and the Programmes continue to meet the standard to achieve the relevant objectives as claimed by the Operator by reference to, *inter alia*, the Operator's fulfilment of any conditions and compliance with any restrictions stipulated in this Accreditation Report. For the avoidance of doubt, maintenance of accreditation status is subject to the fulfilment of any condition and compliance with any restriction stipulated in this Accreditation Report.

3. INTRODUCTION

3.1 The Hang Seng University of Hong Kong (HSUHK) acquired the university title in October 2018. Its predecessor Hang Seng Management College (HSMC), was restructured from Hang Seng School of Commerce (HSSC) in 2010 as a self-financing post-secondary college registered under the Post-Secondary Colleges Ordinance (Cap 320). Currently, HSUHK offers 27 bachelor's degree programmes accredited at Qualifications Framework (QF) Level 5, and 14 master's degree programmes accredited at QF Level 6 (as of September 2023).

3.2 HSUHK commissioned HKCAAVQ to conduct a Learning Programme Re-accreditation exercise for the BMSIM and BSc-DSBI programmes. For this exercise, HKCAAVQ formed an expert Panel (Panel Membership listed at **Appendix 1).** A site visit was conducted by the Panel at HSUHK's campus located at Hang Shin Link, Siu Lek Yuen, Shatin on 10-12 January 2024.

HKCAAVQ's *Manual for the Four-stage Quality Assurance Process under the Hong Kong Qualifications Framework* (version 1.2, November 2020) was the guiding document for the Operator and the Panel in conducting this exercise.

3.3 In consideration of HSUHK's track record established from previous accreditation exercises and in accordance with HKCAAVQ's Differentiation Approach, HSUHK is not required to provide the following information in the *submission documents* of the Bachelor of Management Science and Information Management (Honours) and Bachelor of Science (Honours) in Data Science and Business Intelligence programmes for demonstration of meeting the respective accreditation standards.

Domain of Competence	**Information Not Required**
LPA-6 Learning, Teaching and Enabling Resources/Services	Information on University-wide student support services is not required
LPA-7 Programme Approval, Review and Quality Assurance	Information on University-wide QA processes and mechanisms is not required

4. PANEL'S DELIBERATIONS

The following presents the Panel's deliberations on a range of issues pertinent to its major findings. For aspects of the accreditation standards where no observations are made they are considered to be appropriately addressed by the Operator.

4.1 Programme Objectives and Learning Outcomes

The learning outcomes must have objectives that address community, education and/or industry needs, with learning outcomes that meet the relevant HKQF standards, for all exit qualifications from the programmes.

For BMSIM

4.1.1 The BMSIM programme is hosted by the Department of Supply Chain and Information Management and is under the School of Decision Sciences within HSUHK. The Panel observed that the Programme Objectives (POs) and Programme Intended Learning Outcomes (PILOs) have been updated since the last re-accreditation in 2019. The updated versions are as follows:

As stipulated in Table 11.1, part 2 of the *submission documents*, the Programme Objectives (POs) of the Programme aim to:

1) develop students' analytical power, creativity, critical thinking and problem-solving ability;

2) cultivate students' communication, interpersonal, leadership, transferable skills and independent learning so as to continue professional, personal development and/or further studies;

3) instil in students a strong sense of social responsibility and high commitment to professional ethics;

4) arouse students' awareness of global issues and developments;

5) gain a solid foundation of the principles, technical and theoretical knowledge required in the professional fields of Management Science, Information Management and Business Administration;

6) obtain and apply knowledge of a range of quantitative and qualitative methods as well as conceptual, specialised, technical and creative subject-related skills to aid in business decision-making; and

7) integrate information technology and management science concepts and tools with managerial skills appropriately and effectively in supporting complex business analysis and operations.

The Panel acknowledged that the Operator has taken actions to address the recommendation provided by the last Panel in 2019 regarding the Programme's need to align Programme Intended Learning Outcomes (PILOs) more effectively with the corresponding Programme Objectives (POs). In response, the programme team has thoroughly reviewed the PILOs and mapped them to the relevant POs, as demonstrated below:

Upon completion of the Programme, students should be able to:		Mapped with POs
1	address professional and personal challenges through the application of inter-disciplinary and multidisciplinary knowledge acquired;	PO# 1, 6
2	possess effective communication ability in a business environment, work as a team player to integrate effectively the skills and knowledge developed, and be able to manage independent lifelong learning;	PO# 2
3	evaluate own contributions and responsibilities in becoming responsible employees, business leaders and business partners;	PO# 3
4	possess broad horizons and be inquisitive about various global issues and developments such as politics, cultures, social sciences and technologies;	PO# 4
5	possess solid knowledge and skills in Management Science, Information Management and Business Administration, which will enable them to undertake further study in the above three disciplines or to pursue a career with related knowledge requirements;	PO# 2, 5
6	apply appropriately a range of quantitative and qualitative methods as well as conceptual, specialised, technical and creative subject-related skills in dealing with business issues; and	PO# 1,6,7

7	critically analyse, evaluate and synthesise information, ideas and concepts, and apply information technology and management science concepts and tools appropriately and effectively for operation analysis and managerial decision-making.	PO# 1,6,7

4.1.2 To demonstrate that the graduates have effectively achieved the POs and PILOs of the Programme, the Operator provided the following documents to the Panel for review:

a) Mapping of PILOs against the POs;

b) Mapping of the POs and PILOs against HSUHK 's desired graduates attributes (*iGPS*);

c) Attainment of PILOs through academic and non-academic learning activities;

d) *Module Outlines* of all modules stipulating information on module description, module intended learning outcomes (MILOs), module content, pedagogical and assessment methods, and texts and references;

e) Samples of teaching and learning materials, assessment tasks, project topics and guidelines, and their associated assessment rubrics and criteria from two core modules in Year 1 and Year 2, viz. *MSIM1201 Programming Methodology* and *MSIM2201 Information Systems Analysis and Design;*

f) Samples of marked assessments (two scripts each of high, medium and low performance) together with their associated assessment rubric and criteria from the selected modules in Year 3 and Year 4, namely, *MSIM3202 Information Technology Infrastructure and Security*, and *MSIM4311 Business Intelligence and Data Mining*;

g) Reports from External Examiner (Module) and External Examiner (Programme);

h) Student Learning Experience Survey, Graduate Exit Survey, Alumni Survey; and

i) Reports on Graduate Employment Survey (extracts) of the

Programme.

4.1.3 The Panel noted that the Operator proposed the following change to the Programme title starting from AY2025/26. The award title will also be changed. Year 1 students will be admitted in AY2025/26, and Year 3 students in AY2027/28.

Current Title	**Proposed Title**
Bachelor of Management Science and Information Management (Honours) 管理科學與資訊管理（榮譽）學士	Bachelor of Science (Honours) in Business Analytics and Information Management 商業分析與資訊管理（榮譽）理學士

From the *submission documents*, the Panel noted the decision to rename the BMSIM programme to BSc-BAIM was part of a broader initiative to align the programme's title with its interdisciplinary focus on business analytics, information management, and business administration. The proposed renaming was endorsed by the Programme Advisory Committee, the Programme External Examiner, and the students. Taking into account the feedback, the Panel deemed the change in the programme title appropriate. The revised title will represent more accurately the interdisciplinary nature of the Programme and enable students to approach problem-solving from multiple perspectives, thereby fostering increased creativity. Three modules have been introduced to reflect the interdisciplinary approach and enhance students' analytical and problem-solving skills.

1) *MSIM1301 Introduction to Business Analytics;*
2) *MSIM3204 Digital Business Management; and*
3) *MSIM4313 Contemporary Financial Technology*.

The Graduate Profile of Bachelor of Science (Honours) in Business Analytics and Information Management (BSc-BAIM) is appended as **Appendix 4**.

4.1.4 The Panel noted that the graduation requirements of the Programme were revised in AY2020/21. In order to graduate, BMSIM students must now complete a prescribed curriculum consisting of 129 credits and earn a grade D or higher within the specified normative/maximum period of study. Additionally, they must obtain an overall GPA of 2.0 or above across all modules in which they were assessed. These revised requirements apply to Year 1 students admitted in AY2022/23 onwards and Year 3 intake

from AY2024/25 onwards. The Panel believes that this revision is appropriate as it will increase the rigour of academic standards and encourage students to complete their degree programme within the expected timeframe.

4.1.5 The Operator provided to the Panel the summary of graduate employment in 2020 and 2021, as well as information on the Graduates' Profile of the Programme (as at **Appendix 2**), including the education and employment pathways of the graduates.

4.1.6 Having reviewed the above information, the Panel formed the view that the BMSIM programme has achieved the POs and PILOs as a whole and has met the QF standard at Level 5.

For BSc-DSBI

4.1.7 The BSc-DSBI programme is hosted by the Department of Mathematics, Statistics and Insurance and is under the School of Decision Sciences within HSUHK.

The Programme Objectives (POs) are set out as follows:

1) develop students' creativity, critical thinking, analytical ability and problem-solving skills;

2) cultivate students' communication, interpersonal, leadership, independent learning and other transferable skills;

3) instil in students a strong sense of social responsibility and high commitment to business ethics;

4) enhance students' global awareness and local sensitivity;

5) provide students with a solid foundation of the conceptual, theoretical and practical knowledge in the fields of Data Science and Business Intelligence, supplemented with Business Administration, required for various business purposes;

6) train students to synthesise, manage and evaluate data together with the use of information technology to convey analytical results from data processing tasks for business decision making; and

7) build up students' ability to understand the importance of the applications of Data Science and Business Intelligence in their daily life, particularly in commercial areas.

The Panel noted that the Operator has taken actions to address the recommendation given by the last Panel in 2019 regarding the

Programme's need to align Programme Intended Learning Outcomes (PILOs) more effectively with the corresponding Programme Objectives (POs). In response, the programme team has thoroughly reviewed the PILOs and mapped them to the relevant POs, as shown below:

Upon completion of the Programme, students should be able to:		Mapped with POs:
1	address professional and personal challenges through the application of inter-disciplinary and multi-disciplinary knowledge acquired;	PO# 1,5,6,7
2	possess effective communication ability in a business environment, work as a team player to integrate effectively the skills and knowledge developed, and be able to manage independent lifelong learning;	PO# 2
3	evaluate own contributions and responsibilities in becoming responsible employees, business leaders and business partners;	PO# 3
4	possess broad horizons and be inquisitive about various global issues and developments such as politics, cultures, social sciences and technologies;	PO# 1, 4
5	possess the conceptual and practical knowledge and skills in Data Science and Business Intelligence as well as the solid foundation in Business Administration, which will enable them to undertake further study in the aforementioned disciplines or to pursue a career with related knowledge requirements;	PO# 1,5,6,7
6	synthesise, manage and evaluate data, and apply information technology tools for data analysis to solve business problems; and	PO# 1,5,6,7
7	integrate and apply the knowledge appropriately in Data Science and Business Intelligence for solving practical problems in a dynamic business environment.	PO# 1,4,5,6,7

4.1.8 The Operator provided the following information to the Panel for review:

a) Mapping of PILOs against the POs;

b) Mapping of the POs and PILOs against HSUHK's desired graduate attributes(*iGPS*);

c) *Module Outlines* of all modules stipulating information on module description, module intended learning outcomes (MILOs), module content, pedagogical and assessment methods, and texts and references;

d) Samples of teaching and learning materials assessment tasks, project topics and guidelines, and their associated assessment rubrics /criteria from two core modules in Year 2 and Year 3, viz. *AMS2002 Optimization for Data Science*, and *AMS3640 Data Mining;*

e) Samples of marked assessments (two scripts each of high, medium and low performance) together with their associated assessment rubric/criteria from the selected modules in Year 2 and Year 4; namely, *COM2007 Database Management System and Data Warehousing*, and *AMS4640 Machine Learning*;

f) Student Learning Experience Survey, Graduate Exit Survey and Alumni Survey;

g) Summary of Graduate Employment Survey; and

h) Reports from External Examiner (Programme) and External Examiner (Module).

4.1.9 The Panel reviewed the summary of employment of recent graduates within the validity period, as well as information on the Graduates' Profile of the Programme (as in Appendix 3), including the education and employment pathways of the graduates.

4.1.10 The Panel noted from the *submission documents* that the results from the Student Learning Experience Survey and the Graduate Exit Survey are generally satisfactory. In addition, the Programme also received positive comments from students and graduates on modules and lecturers highlighted the Programme's ability to ensure the overall students' learning experience would match with the achievement of PILOs. During the site visit, the Panel met with stakeholders such as the external examiners. external advisors, students and graduates, who expressed their positive support for

the Programme. The Panel also recognised that the Programme has been structured to provide students with the necessary knowledge to keep up with industry requirements.

At the site meeting, the Panel met with three graduates of the Programme who were holding positions relevant to the technical skills they acquired. These graduates were working as a data scientist, an equity research manager, and a manager of an AI marketing platform respectively. The graduates interviewed considered that they had received comprehensive education from the Programme, which encompassed both soft skills and practical skills. The Panel also noted that there is a direct relation between the practical and soft skills they acquired through the Programme.

4.1.11 In consideration of the above information, the Panel formed the view that the BSc-DSBI programme has achieved the POs and PILOs as a whole and has met the QF standard at Level 5.

For Both Programmes

4.1.12 In accordance with the survey results on graduate employment for 2020 and 2021 for both Programmes, a majority of the BMSIM graduates (79.3% in 2020 and 70% in 2021) and BSc-DSBI graduates (82.6% in 2020 and 78.8% in 2021) secured full-time employment in relevant industry shortly after graduation.

4.1.13 In terms of education pathways, the Panel noted that the School of Decision Sciences plans to launch two new postgraduate programmes in AY2025/26: the Master of Science in Risk Analytics and the Master of Science in Digital Innovation and Technology Management. These programmes will offer graduates further study options to enhance their academic development and expand their career opportunities in the relevant fields.

4.1.14 Overall, the Panel considered that the evidence presented on employment and articulation pathways for graduates in the BMSIM and BSc-DSBI programmes indicated that they have, in general, met the objectives set for the Programmes and acquired the knowledge and skills outlined in the PILOs. This suggests that the graduates have successfully gained the necessary competencies and are well-prepared for employment or further education in their respective fields.

4.2 Learner Admission and Selection

The minimum admission requirements of the learning programme must be clearly outlined for staff and prospective learners. These requirements and the learner selection processes must be effective for recruitment of learners with the necessary skills and knowledge to undertake the programme.

For Both Programmes

4.2.1 The BMSIM and BSc-DSBI programmes follow the University's policies regarding student admission.

Admission of Year 1 Students on Normal Entry

Hong Kong Diploma of Secondary Education (HKDSE) Examination
Level 3 or above in Chinese Language and English Language, Level 2 or above in Mathematics (Compulsory), "Attained" in Citizenship and Social Development and Level 2 in one elective subject.

General Certificate of Education (GCE) A-Level Examination
Passes in 2 A-Level subjects, excluding Chinese.

International Baccalaureate Diploma Programme
24 points (including 3 subjects at Higher Level and 3 at Standard Level, 12 points or above- to be obtained from subjects at Higher Level), i.e., completion of IB Diploma.

SAT Qualification
A minimum of 1650 Reasoning Test (prior to March 2016) or 1190 on Redesigned SAT (from March 2016); and secondary school examination results may be considered apart from the SAT score.

4.2.2 As per the announcement made by EDB on 1 April 2021, the *Liberal Studies* was to be replaced by *Citizenship and Social Development* in the HKDSE, and its results will be reported as: "Attained" starting from AY2024/25.

Admission of Year 1 Students: Non-local Entry

HSUHK considers applicants with equivalent qualifications on a case-by-case basis. Performance at the interview is also taken into consideration. The Panel observed that the quota for non-local students from Mainland China, Taiwan, and Macau has been increased from 10% to 20% starting from the academic year 2023/24, approved by EDB on 20 December 2022. This increase,

coupled with the easing of COVID-19 restrictions and enhanced student recruitment efforts, may help improve the admission number of non-local students.

Admission of Year 1 Students: Non-standard Entry

Applicants whose academic attainment did not reach the minimum requirement would be invited for an interview, or mature applicants aged 23 or above on 1 September when admission is sought, with a minimum of two years' work experience in their chosen field of study or demonstrated ability to pursue their chosen field of study, may apply.

Admission to Year 3 Entry

The Panel noted that applicants who have completed an Associate Degree or Higher Diploma in a related discipline from a recognised institution in Hong Kong or overseas, with a minimum cumulative GPA of 2.5 or equivalent, may be considered for Year 3 admission. For the BSc-DSBI programme, an interview is required as part of the admission assessments for Year 3 entrants.

The Panel also noted that all Year 3 entrants joining the University from AY2022/23 onwards are required to complete and pass *ENG3002 English for Professional Communication* in the Common Core English Curriculum. The Panel held the view that enhancing the proficiency in English for Year 3 entry to both Programmes is appropriate, as it will help students develop a deep understanding of the role and importance of language and communication in business and other professional settings.

<u>For BSc-DSBI-Changes of Admission Quota</u>

While the admission quota of 70 for Year 1 remains unchanged during the validity period, there are changes in admission quota for Year 3 entry. To enhance study opportunities in data science and business intelligence for Associate Degree and Higher Diploma graduates, 10 Year 3 entry quotas were introduced and approved by HKCAAVQ starting from AY2019/20. An additional 20 quotas for Year 3 were later added and approved in August 2020, effective from AY2020/21.

Academic Year	BSc-DSBI Year 1 Admission Quota	BSc-DSBI Year 3 Admission Quota
2019/20	70	10

2020/21 onward	70	30

4.2.3 Since the last accreditation, both Programmes have admitted non-local and non-standard students for Year 1 study and Year 3 entry on a case-by-case basis, following the University's admission criteria. The BMSIM programme admitted one non-local student for Year 1 and another for Year 3, along with two students admitted via the non-standard route (one for Year 1 and one for Year 3). The BSc-DSBI programme admitted 17 non-local students for Year 1 and 2 non-standard entrants for Year 1 within the validity period.

4.2.4 In line with the Government's policy on the yearly quota of non-standard admission for programmes accredited under the Qualifications Framework, for degree programmes operating in the AY 2023/24 and onwards, the maximum number of non-standard admission (including mature students) should be capped at a maximum of 15% on programme basis of the actual number of new students of the year, and 10% on an institutional basis. The cap is applied in line with the general expectation of self-financed degree-awarding institutions in safeguarding teaching and learning quality and thereby upholding the credibility and recognition of the qualifications. The percentage is based on the sum of new student numbers across all years of study of the programme.

For Both Programmes

4.2.5 Besides reviewing the minimum admission requirements, the Panel also reviewed the following information:

a) Annual enrolment numbers;

b) Average admission scores of Year 1 entrants for HKDSE; and,

c) Mean CGPA by year.

The minimum admission requirements for the Admission of Year 1 on Normal Entry in Mathematics (Compulsory) are Level 2. However, the Panel noticed that the scores from previous intakes in Mathematics (Compulsory) were much higher than the minimum required score. For example, the mean score for BMSIM Year 1 entrants was 3.25, and the median was 4 for BSc-DSBI in AY2022/23. Based on the comments from academic advisors and external examiners, it was observed that there are students entering the programmes with weaker mathematical abilities. The Panel also noted that a remedial course, *AMS1600 Mathematical and Statistics Enhancement*, and a summer bridging course are offered to help students strengthen their mathematical and statistical skills.

While the Panel appreciated the availability of additional support for students who may require it, the Operator is **advised** to keep the existing support under review for students entering the Programmes with lower mathematical abilities, as a stronger foundation in mathematics is increasingly becoming important in these discipline areas. By reviewing and enhancing the support available for students with lower mathematical abilities, the Operator can ensure that all students would have the opportunities to develop the necessary mathematical skills required for the curriculum.

4.2.6 HSUHK adopted the Grade Point Average (GPA) system for the programmes. Assessment and grading are based on a criterion-referenced approach where students' performance is measured against the pre-determined criteria which can reflect the module intended learning outcomes (MILOs) of the programmes. The Panel observed a general decrease in the mean CGPA for both Programmes. The Panel noted that in their system, the Operator analysed the potential reasons behind the decline and took necessary measures to support students through the Personal Tutor System and made enhancements to the pedagogy for modules in which students encountered difficulties.

4.2.7 The Panel also met with representatives of students and graduates from both Programmes at the site visit and noted that the Personal Tutor System received high praise from them. The personal tutor serves as a point of contact for students and assists them in navigating their academic journey, and provides support for non-academic challenges they may face. The Panel considered such a strong emphasis on the well-being of students and the implementation of the Personal Tutor System is valuable for the Programme.

From the *submission documents*, since AY2018/19, both Programmes have been selected under the Study Subsidy Scheme for Designated Professions/Sectors (SSSDP), with admission to the programmes conducted under the Joint University Programmes Admissions System (JUPAS) platform. The SSSDP scheme is an initiative of the government's policy of nurturing talents in support of specific industries in Hong Kong with a keen demand for human resources.

Contrary to the demand expected, the Panel observed a significant drop in enrolment compared to the previous year, particularly in AY2021/22 and 2022/23. There is the continuing decrease in the number of HKDSE candidates, let alone the keen competition from other tertiary institutions. The Operator, however, expects that fluctuations in enrolment will be reduced with the enhanced promotion and publicity efforts of student admission.

4.2.8 In conclusion, the Panel considered that the minimum admission requirements and selection process of the BMSIM and BSc-DSBI

programmes are generally appropriate and have been properly implemented to ensure students possess the knowledge and skills to be able to undertake the learning activities in the Programmes.

4.3 Programme Structure and Content

The structure and content of the learning programme must be up-to-date, coherent, balanced and integrated to facilitate progression in order to enable learners to achieve the stated learning outcomes and to meet the programme objectives.

For Both Programmes

4.3.1 The structure of both Programmes is similar to other bachelor degrees offered by HSUHK, which consists of a) Major Studies and Business Education; b) Common Core Curriculum; and c) Free Electives. The number of modules varies across individual programmes in view of their uniqueness. Apart from Major Studies and Business Education, students must complete at least 16 modules in the Common Core Curriculum, covering general education, languages, quantitative methods, and IT skills. The Panel was informed that the comprehensive approach to education adopted aims to prepare students with well-rounded skill sets to cater for the fast-paced and evolving world.

4.3.2 The Panel noted from the s*ubmission documents* a number of changes made to the content of both Programmes within the validity period. The Operator provided the rationale for these changes, which, in essence, in response to the latest trends and developments in the industry. To ensure students are equipped with relevant knowledge and skills, the Operator consulted industry and academic advisors, incorporating their feedback through regular programme reviews. Additionally, minor adjustments were made to align the Common Core Curriculum requirements with other accredited bachelor degree programmes at HSUHK.

4.3.3 The Panel noticed that the *Module Outlines* contain mostly outdated references and recommended texts. During the site meeting, the Panel inquired about how the Operator maintains the currency and comprehensiveness of these materials, as well as how they incorporate the latest industry trends. The Operator replied that there are various mechanisms in place to address the above concerns, including an annual review by the Programme Committee. However, despite having the systems mentioned, the Panel found that not all references are consistently updated. At the meeting with students and graduates of the BSc-DSBI programme, they said they would rely on the supplementary materials and lecture notes

provided by the lecturers in class to obtain the latest information on the respective subject matters. Given the fast-paced nature of industry developments, the Panel considered that it is crucial to align the recommended texts and references with current practices. To this end, the Panel **recommended** that the Operator should review and strengthen the mechanisms of reviewing and updating the recommended texts and references with rigour. This, in turn, will contribute to the continuous improvement of the curriculum, and ensure that students have access to up-to-date learning materials.

4.3.4 At the site meeting with senior management, the Panel was informed that the curriculum design adheres to the university's mission, which advocates for a balanced approach between liberal and professional education. The core of the curriculum encompasses university-wide elements such as intellectual competence, generic skills, personal development, and social engagement. These aspects are the desired graduate attributes (*iGPS*) developed by HSUHK.

While professional education emphasised the importance of employment prospects and further studies in later years, there were suggestions from various stakeholders, including employers, students and graduates, to replace some liberal studies related modules with professional modules in the first two years. Nonetheless, the Panel **advised** the Operator to ensure that the liberal and professional education of the HSUHK programmes continue to emphasise the desired graduate attributes and develop soft and transferrable skills to avoid graduates' becoming vulnerable to rapid technological change. The significance of incorporating work-based, and service-learning projects into the curriculum was particularly highlighted, as these experiences can provide valuable practical knowledge and skills to the students. Furthermore, the development of soft skills and transferable skills was deemed crucial. With the rapid advancements in technology, the Panel emphasised that it is essential to equip graduates with these skills to navigate the challenges presented by the evolving job market.

For BMSIM

4.3.5 The Panel heard the views from students and graduates during the site visit that more programming modules need to be offered during Year 1 and Year 2 to strengthen their coding principles and problem-solving techniques, which will help them progress to more advanced topics in later years of studies. They also opined that Java should be taught in Year 1 or Year 2 to provide them with a deeper understanding of how programming works. The Panel agreed that learning about coding not only allows students to give machines instructions, but also enables the students to learn about abstract thinking and problem-solving skills. Hence, the Panel **recommended** that the Operator should consider increasing the emphasis on programming in the first two years of the degree to lay

a stronger foundation for students, including reviewing the use of Java in introductory modules and strengthening students' general IT literacy. Enhancing students' IT literacy will equip them with valuable competencies for their future studies and careers in a technology-driven world.

4.3.6 In view of the above information and the discussion with various stakeholders, notwithstanding the recommendations above, the Panel considered that the content and structure of the BMSIM and BSc-DSBI programmes, along with the proposed changes, remain coherent, balanced, and integrated to facilitate student progression and enable them to achieve the stated learning outcomes and meet the programme objectives.

4.4 Learning, Teaching and Assessment

The learning, teaching and assessment activities designed for the learning programme must be effective in delivering the programme content and assessing the attainment of the intended learning outcomes.

4.4.1 From the *submission documents* and *Response to the Panel's Initial Comments*, the Panel noted that VeriGuide is used to address the potential issue of plagiarism in student assessments. At the site meeting with senior management, the Panel further inquired about the policies and explicit guidelines at the University concerning the use of large language models (LLMs), including ChatGPT or any other AI-based tools, for all classroom activities, coursework, and assessment tasks.

The Operator informed the Panel that they recognised the importance of providing guidance for staff and students regarding the use of generative AI. An Open AI Working Group was formed and developed the "*Guidelines for Using Generative Artificial Intelligence in Teaching and Learning",* which received approval from the Academic Board on 17 August 2023. These guidelines aim to support staff and students in integrating generative AI tools, specifically ChatGPT, ethically and effectively in educational settings. The Panel agreed that this is a proactive approach in evaluating the impact of generative AI on learning, teaching, and assessment.

For BMSIM

4.4.2 During the site visit, the Panel met with the teaching staff to discuss various aspects of the Programme, including the different software used, such as SAS. The Panel also noted that students who successfully complete the requirements of the SAS-based modules

are awarded the SAS Joint Certificate in Data Mining, which adds an extra qualification in the professional field before graduation.

For BSc-DSBI

4.4.3 In addition to the recommended texts and references listed in the *Module Outlines*, the teaching staff will provide students with supplementary learning materials, including recent journal articles and e-resources, to further enhance their knowledge. By doing so, the staff members are actively engaged in publishing, prioritising journals within the top 10% in terms of impact factor rather than solely focusing on top-tier journals. This research-driven approach forms the foundation of the teaching methodology, enabling the team to consistently improve the curriculum and assessment quality. The Panel commended the programme team for their commitment to incorporating the latest industry trends and developments, utilising research-informed teaching methods to keep students learning up-to-date.

For Both Programmes

4.4.4 In the *submission documents*, the Panel was provided with lists of workshops, seminars, and student activities organised by HSUHK during the validity period. The BMSIM and BSc-DSBI programmes incorporate a range of teaching and learning activities, such as, lectures, guest lectures, seminars, workshops, group projects, tutorials, case studies, and presentations. Seminars and workshops are specifically organised to enhance students' understanding of industry advancements and develop their soft skills for future employment. Students also have the opportunities to participate in out-of-classroom learning activities to gain more hands-on experience, such as, company visits, service learning, and volunteer work.

For BMSIM

4.4.5 The Panel heard from students and graduates at the site meeting that they missed out on school life in Year 1 and 2 caused by the pandemic. They particularly mentioned the suspension of companies/industrial site visits. Given the situation and the great value of these activities for future internships, job opportunities, and mentorship, the Operator is **advised** to consider increasing the number and range of companies/ industrial site visits to enrich students' learning experiences. This would also provide experiential learning opportunities for students as well as inspire them to explore new career paths that they may not have considered before.

4.4.6 The Operator has made a substantial change related to the graduation requirements, effective from AY2022/23 intake for Year

1 and AY2024/25 intake for Year 3. Approval was received from HKCAAVQ on 17 March 2022.

In order to be eligible for the award of the Bachelor of Management Science and Information Management (Honours), students must have:

i. Completed and obtained a Grade D or above in 129 credits (44 modules);

ii. Obtained an overall GPA of 2.0 or above across all modules in which they were assessed;

iii. Attained a score of 6.0 or above in IELTS Test before their final year of study;

iv. Attained the level of "Third Class, Grade B" (三 級 乙 等) or above in the Putonghua Proficiency Test (普通話水平測試) before their final year of study; and

v. Fulfilled all other University graduation requirements.

For BSc-DSBI

To be eligible for the award of the Bachelor of Science (Honours) in Data Science and Business Intelligence, students must have:

i. Completed and obtained a Grade D or above on at least 120 credits (41 modules), including all core modules;

ii. Obtained a cumulative GPA of at least 2.0;

iii. Fulfilled the language competency exit requirements, i.e. 6.0 or above in IELTS and Third Class, Grade B (三 級 乙 等) or above in the National Putonghua Proficiency Test (普通話水平測試);

iv. Fulfilled the Information Technology requirement; and

v. Fulfilled all other University graduation requirements.

4.4.7 In terms of assessments, an array of methods has been adopted in both Programmes, including class participation, assignments, projects, presentations, tests, quizzes, and final examinations. The Programme also received comments from the external examiners that the assessments and the marking were appropriate.

During the on-site meeting with senior management, the Panel discussed the issue of class participation and noted that the weightings assigned in most modules varied from 5% to 10%. It was noted that the external examiner of the Programme has the same concern. In response, the Operator mentioned the availability of rubrics for assessing students' involvement in class. Unlike other public universities, HSUHK's smaller class size allows lecturers to closely monitor student participation. The Panel considered that the mechanisms in place are appropriate.

4.4.8 Notwithstanding the above, the Panel considered the teaching and learning activities, the assessment methods of the BMSIM and BSc-DSBI programmes support effective learning and enable students to demonstrate achievement of the learning outcomes.

4.5 Programme Leadership and Staffing

The Operator must have adequate programme leader(s), teaching/training and support staff with the qualities, competence, qualifications and experience necessary for effective programme management, i.e. planning, development, delivery and monitoring of the programme. There must be an adequate staff development scheme and activities to ensure that staff are kept updated for the quality delivery of the programme.

For BMSIM

4.5.1 The Programme is hosted by the Department of Supply Chain and Information Management and is under the leadership of the School of Decision Sciences. In response to the recommendation made by the last Panel in 2019, the Operator has taken actions to strengthen the staff resources for the Programme in Information Technology and Information Systems Management (IT/ISM). Currently, the Programme has 8 full-time faculty members involved in teaching 15 BMSIM core and core elective modules and 3-4 part time teaching staff with industrial experience in IT/ISM and Fintech. During the site visit, the Panel reviewed the profiles of the teaching staff, full-time and part-time, showing their academic and professional qualifications and work experience.

4.5.2 In the *Response to the Panel's Initial Comments*, the Panel observed that one of the part-time lecturers only held a bachelor's degree. The Operator justified this by explaining that the lecturer possessed extensive consultancy experience in setting up SAP

ERP systems for companies. The practical experience and project implementation knowledge of this lecturer are considered crucial for delivering the module *MSIM4301 Enterprise Business Applications*, and students will greatly benefit from the practical knowledge imparted by this lecturer.

4.5.3 During the site meeting, the Panel met with two part-time teaching staff members. One of the lecturers, still holding a full-time job, will incorporate her own confidential commercial cases (anonymised) as case studies, in addition to using textbook cases, while the other lecturer is semi-retired. The Panel raised concern about how the part-time lecturers can stay updated with the rapidly changing industry advancements if not actively engaged in industrial practice. In terms of support, the lecturers receive support from the module coordinators, who assist with examination papers, assessments, and occasionally co-teach with the module leaders. When questioned about outcome-based teaching and learning (OBTL), the lecturers appeared unclear despite having received some training on the subject.

As for the OBTL, the understanding of this approach is important to ascertain whether students have effectively achieved the PILOs and MILOs. With these being considered, continuous professional development should be provided to part-time staff to help them stay current with industrial practices and acquire the skills for using the OBTL approach. Additionally, efforts should be made to reintegrate the part-time staff into the programme team, as they currently seem isolated. Based on these considerations, the Panel **recommended** that the Operator should enhance the support for professional development among part-time teaching staff, such as OBTL, and actively involve them as members of the programme team. Furthermore, efforts should be made to ensure their ongoing engagement in industrial practice to keep them up-to-date. This would subsequently benefit the students and the Programme as a whole.

4.5.4 The Operator noted that there is a wide range of professional development opportunities available for staff, both formally through the Center of Teaching and Learning (CTL) and through departments. On the departmental level, various seminars are organised to advance discipline-specific knowledge. From the *submission documents*, the Panel reviewed the summary records of staff development activities for AY2019/20, 2020/21 and 2021/22. The average hours and average training times per staff were also recorded. There are also internal seminars, and external seminars and training sessions available for staff. Participation to these

training seminars is voluntary. The Department does not currently have a set of requirements for the number of professional development hours.

The Panel considered that in today's dynamic business landscape, it is imperative for teaching staff, particularly the new ones, to actively pursue ongoing professional development. By formalising professional development opportunities and requirements for teaching staff through implementing a minimum number of hours of professional development, the Operator would be able to demonstrate its commitment to continuous learning and professional growth for its staff members. The Operator is **advised** to consider formalising the professional development opportunities for new staff and possibly requiring existing staff to undertake a minimum number of hours of continuous professional development per year.

For BSc-DSBI

4.5.5 The Programme is hosted by the Department of Mathematics, Statistics and Insurance and is under the leadership of the School of Decision Sciences. During the site visit, the Panel reviewed the profiles of the full-time and part-time teaching staff and had a discussion with the full-time staff about their roles and responsibilities in programme delivery, review and enhancement. The Panel found the teaching staff to be generally qualified and enthusiastic in teaching and developing the Programme.

4.5.6 During the site meeting with students and graduates, the Panel received feedback regarding the importance of service-learning and social engagement. From the *submission documents*, the Panel noted that the Service-Learning Section was established under the Center for Teaching and Learning (CTL) in AY2018/19. However, certain students were having difficulty finding suitable projects. To address this issue, the Panel **advised** the Operator to consider allocating departmental resources to sourcing and overseeing service learning and social engagement projects. This initiative of identification and management of service-learning and social engagement projects may involve assigning faculty or staff members as mentors or supervisors, who will guide and support students throughout their engagement.

The Panel also noted from the minutes of the Programme Advisory Committee (PAC) in AY2019/20 and AY2020/21 regarding the positive feedback on service learning. For example, there were project teams that offered recommendations to the hospital aiming at improving the elderly’s understanding of the relationships between diseases and health factors. The Panel agreed with PAC’s advice for the programme team to actively encourage and motivate more students to participate in service learning for gaining valuable practical experience and make meaningful contributions to the

community.

4.5.7 In consideration of the above information and the discussion with relevant stakeholders, the Panel formed the view that the programmes leadership and staffing are appropriate in general and the staff has the appropriate qualifications and experience necessary for effective management and delivery of the Programmes.

4.6 Learning, Teaching and Enabling Resources/Services

The Operator must be able to provide learning, teaching and enabling resources/services that are appropriate and sufficient for the learning, teaching and assessment activities of the learning programme, regardless of location and mode of delivery.

For Both Programme

4.6.1 From the *submission documents*, the Panel was provided with the Income and Expenditure Statements from AY2019/20 to AY2021/23 and Income and Expenditure Projection from AY2023/24 to AY2028/29 for review. Based on the information provided, the Panel considered that the operations of both Programmes are adequately supported in terms of financial resources and continue to be financially viable.

For BMSIM

4.6.2 On physical resources, the Decision Sciences Technology Laboratory (DST Lab) in Room A211, established in 2013, has been utilised for specific teaching and learning activities related to the Programme that require specialised software. From the *submission documents*, the Panel was provided with a comprehensive list of the software and equipment currently installed in the DST Lab, along with usage rates over the past five years and projected rates for the next five years. This was done to demonstrate that the DST Lab possesses sufficient capacity and resources to support the relevant teaching and learning activities of the Programme. During the site visit, the Panel was given a tour of the DST Lab to see a demonstration of teaching and learning activities conducted within it. Additionally, the Panel visited the Virtual Reality and Big Data Analytics Laboratory (VRBD Lab), where staff members showcased the application of virtual reality technologies. The Panel was particularly impressed by the VR

technologies used to preserve and showcase cultural heritage in Hong Kong that has been lost or demolished.

For BSc-DSBI

4.6.3 The Panel was provided with the information on learning, teaching and enabling resources relevant to the Programme. The Applied Statistics Laboratory (ASL) was established in 2014 and has 60 computer stations. The Panel received a list of currently installed software and information for the past five years and projected usage rates for the next five years of the ASL. During the site visit, the Panel visited the ASL and saw the demonstrations of how it supports relevant teaching and learning activities of the Programme. In response to the previous Panel's recommendation in 2019 regarding remote access to computational resources and software for BSc-DSBI students, the Operator introduced a new e-laboratories service in February 2020. This service allows teachers and students to access computational resources and specialised statistical software, such as SAS and SPSS, remotely for their studies. In addition, the Operator provides a SAS 9.4 software license for students to install on their home computers.

For Both Programmes

4.6.4 During the discussions with the teaching staff of each programme, the Panel learned that while there are good practices in both Programmes, noticeable variations exist in departmental procedures and culture, with each programme having its own distinct practices in, for example, EEP and EEM report formats and in student orientation. To this end, the Operator is **advised** to consider using school or university committees and staff development events as platforms to share good practices from each Programme. These events can create valuable opportunities for teaching staff to exchange experiences and share their best practices with one another.

4.6.5 During the on-site meeting attended by students and graduates from both Programmes, they unanimously expressed how the mentorship programme provided them with invaluable opportunities to learn from mentors from renowned organisations. A graduate shared with the Panel that he had secured his job through his mentor's guidance. The mentorship programme has gained immense popularity among students due to its numerous advantages.

4.6.6 In the minutes of the PAC Meeting in 2020, members commended that the mentorship scheme provides a platform for students for career development through interpersonal interaction and knowledge acquisition. The Panel also noted from the *submission*

documents that the Student Affairs Office (SAO) organises the Career Mentorship Programme matching students with industry practitioners. Alumni will also be engaged to assist students in career preparation and the referral of opportunities. Based on these positive outcomes, the Operator is **advised** to extend the mentorship scheme to provide students with more opportunities to learn from business mentors. This can be achieved by leveraging the alumni network to a greater extent.

For BMSIM

The Panel noted the value of alumni engagement and particularly the importance of the industrial landscape. One key industry advancement is the use of Python and the Operator has adopted this opinion from the alumni. Given the value of alumni's experience in industry, the Operator is **advised** to consider engaging the alumni more actively in terms of mentorship and offering internships to current students, as well as seeking their advice on curriculum adjustments.

For Both Programmes

4.6.7 The Panel recognised the Operator's efforts in sourcing a diverse range of internship opportunities for students and noted the requirements for the credit-bearing *MSIM3311 Internship* for BMSIM students. The Panel also concurred with the advice given by the last Panel in 2019, which suggested seeking more one-year internship opportunities for the students who aspired to gain more exposure in the business world. From the *submission document*, the Panel also noted that the Career Planning and Development Section of the Student Affairs Office (SAO) has established sourcing internships for students both locally and globally.

For BMSIM

The Panel noticed that the number of students choosing *MSIM3311 Internship* as an elective module in the past three academic years has been low, with only 24 students opting for it. The programme team analysed the situation and identified two main reasons for the low participation rate: students who secure summer internships often skip the module due to prerequisite workshops, and second-year students are unable to enroll due to the module's prerequisites. To address these issues, the programme team suggests arranging additional workshops for late internship offers and considering allowing second-year students to enroll in *MSIM3311*. Hence, the Operator is **advised** to consider actively promoting internships, even when they are not mandatory, to encourage greater student participation.

For BSc-DSBI

4.6.8 The Programme does not require students to undertake an internship, and it holds no academic credit value. Still, the Internship Programme Coordinator of the Programme has been sourcing internship opportunities. After reviewing the summary for the students of internship offers during the validity period, the Panel observed that most internships were offered during the summer and were available on a part-time or full-time basis, with some one-year offers while employers whom the Panel met with at the site visit, expressed a preference for students to work for a longer duration and possibly one year.

Given the benefits of a year-long internships despite an additional year is needed to complete the Programme, the Panel **advised** that the Operator could consider offering one-year, part-time internships to increase the availability of internship opportunities for students. This approach would not only enhance the students' employability upon graduation, but also provide them with a more comprehensive and immersive internship experience.

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4.7 Programme Approval, Review and Quality Assurance

The Operator must be able to provide learning, teaching and enabling resources/services that are appropriate and sufficient for the learning, teaching and assessment activities of the learning programme, regardless of location and mode of delivery.

For Both Programmes

4.7.1 HSUHK appoints External Examiners for Programmes (EEP) and Modules (EEM) to provide an external and impartial review on the general and academic programmes. In accordance with *HSUHK Quality Assurance Manual* (updated in August 2023), the term of service of EEP and EEM is normally three years. During the site visit, the Panel met with representatives of EEP and EEM to discuss their roles and to gather their views on the overall student performance of modules in the Programmes. The Panel also noted that EEP is responsible for assessing the overall standards of the examinations/ assessments as well as reviewing the reports of EEMs on major core and elective modules of the Programmes.

For BMSIM

4.7.2 During the site meeting, the Panel met with the EEM and learned that he has been serving as an EEM for six years, completing his second term. He typically reviews around 7-8 modules per year. However, he is uncertain about which module(s) to review until contacted by the Department at the end of the semester. Once his availability is confirmed, he will receive the necessary materials for review within a 2-week timeframe. The EEM is required to submit a report with comments to the Department containing suggestions for improving the overall quality of the modules.

The Panel observed that the specific duties of EEMs tend to vary from semester to semester, particularly in terms of the modules, teaching materials, and assessments they moderate. Therefore, the Panel **recommended** that the Operator should formalise the precise duties of EEMs, specifying the modules, teaching materials, and assessments to be moderated, especially when a new EEM is appointed.

For BSc-DSBI

4.7.3 The Panel met with the EEP during the site meeting and was informed that he has served in his fourth three-year term of service. The Panel noted that the Operator limits each external examiner to one extension, i.e., six years maximum. In this case, the EEP had served two successive terms as EEM (AY2014-20), followed by two successive terms as EEP (AY2020-26). The Panel acknowledged that the roles of EEM and EEP are slightly different, but **recommended** that the Operator should limit external examiners in any capacity (EEM or EEP) to a maximum of six years. This limitation would ensure their detachment and independence, as well as avoid potential conflicts of interest or complacency that may arise from longer-term appointments. By regularly appointing new external examiners, the examination process can benefit from fresh perspectives, maintain objectivity, and uphold integrity and credibility.

For Both Programmes

4.7.4 The Panel was provided with the minutes of relevant Boards/Committee meetings to demonstrate that both Programmes had gone through the internal approval process as stipulated in HSUHK's quality assurance (QA) processes and mechanisms for programme re-accreditation. The Panel noted that the *Programme Re-accreditation Documents* (PRDs) prepared by the Programme Committee of each Programme were initially reviewed and endorsed by the respective Department Boards. An Independent

Re-accreditation Panel (IRP) with external members from academic and industry sectors was formed to conduct a paper-based review of the PRDs of each Programme at the IRP meetings.

4.7.5 The Panel was provided with the Reports on the IRP meetings held in June 2023 for both Programmes. The Reports contain general comments made by the IRP and key discussion items at the meetings, as well as HSUHK's response and follow-up actions taken in relation to IRPs' comments and recommendations. The finalised PRDs were then endorsed by the School Board and the Academic Planning Development Committee and approved by the Academic Board before submission to HKCAAVQ.

4.7.6 To further demonstrate the effectiveness of various feedback channels in ensuring the quality of the Programmes, the Panel was provided with the reports on a) Annual Programme Review; b) Students' Feedback on Modules and Teaching; and c) Graduate Employment Survey, with examples of programme improvements/ enhancements made in response to findings from these reports and surveys. After reviewing the above reports and survey results, and also upon discussing with the representatives of internal and external stakeholders on site, the Panel formed the view that the Operator has responded constructively to feedback collected from a wide range of stakeholders during the Programme review process for continuous improvements made to the Programmes.

For BSc-DSBI

4.7.7 The Panel reviewed the minutes of the Programme Advisory Committee (PAC) for AY2019/20, 2020/21, and 2022/23. The PAC meets annually with the programme team to discuss student-related matters such as admissions, student performance, support, achievements, and graduate employment surveys. During the meeting, the programme team reported that they had addressed the recommendations given by the PAC. For example, they added a new core module, *AMS4640 Machine Learning*, to the curriculum based on their suggestion to emphasise machine learning. The Panel considered these as evidence of the Programme's having achieved its intended learning outcomes (PILOs).

However, the Panel also considered that the frequency of PAC meetings can be increased to strengthen the interaction with the programme team. More frequent meetings would enable timely feedback and input from committee members. The programme team could at the same time provide updates on the actions taken

based on the committee's recommendations, progress made in implementing changes, and outcomes achieved. To this end, the Panel **advised** that the Operator could increase the frequency of PAC meetings from once a year to a more frequent schedule.

4.7.8 The Panel noted that diverse methods have been employed to gather input from students regarding their learning experience in both Programmes. Several feedback channels, such as Students' Feedback on Modules and Teaching, Student Learning Experience Survey, and Teachers' Assessment on Students' Learning, have been utilised. The Panel thoroughly examined these surveys from the *submission documents* and recognised that the Operator will take follow-up actions such as follow-up class visit based on the gathered feedback to ensure continuous improvement.

4.7.9 Notwithstanding the above recommendations, the Panel considered that the Operator has in place an established QA system with effective channels for collecting feedback from internal/external stakeholders to monitor and enhance the quality of the BMSIM and BSc-DSBI programmes on an on-going basis.

5 IMPORTANT INFORMATION REGARDING THIS ACCREDITATION REPORT

5.1 Variation and withdrawal of this Accreditation Report

5.1.1 This Accreditation Report is issued pursuant to section 5 of the AAVQO, and contains HKCAAVQ's substantive determination regarding the accreditation, including the validity period as well as any conditions and restrictions subject to which the determination is to have effect.

5.1.2 HKCAAVQ may subsequently decide to vary or withdraw this Accreditation Report if it is satisfied that any of the grounds set out in section 5 (2) of the AAVQO apply. This includes where HKCAAVQ is satisfied that the Operator is no longer competent to achieve the relevant objectives and/or the Programme no longer meets the standard to achieve the relevant objectives as claimed by the Operator (whether by reference to the Operator's failure to fulfil any conditions and/or comply with any restrictions stipulated in this Accreditation Report or otherwise) or where at any time during the validity period there has/have been substantial change(s) introduced by the Operator after HKCAAVQ has issued the accreditation report(s) to the Operator and which has/have not been approved by HKCAAVQ. Please refer to the '*Guidance Notes*

on Substantial Change to Accreditation Status' in seeking approval for proposed changes. These Guidance Notes can be downloaded from the HKCAAVQ website.

5.1.3 If HKCAAVQ decides to vary or withdraw this Accreditation Report, it will give the Operator notice of such variation or withdrawal pursuant to section 5(4) of the AAVQO.

5.1.4 The accreditation status of Operator and/or Programme will lapse immediately upon the expiry of the validity period or upon the issuance of a notice of withdrawal of this Accreditation Report.

5.2 Appeals

5.2.1 If the Operator is aggrieved by the determination made in this Accreditation Report, then pursuant to Part 3 of the AAVQO the Operator has a right of appeal to the Appeal Board. Any appeal must be lodged within 30 days of the receipt of this Accreditation Report.

5.2.2 If the Operator is aggrieved by a decision to vary or withdraw this Accreditation Report, then pursuant to Part 3 of the AAVQO the Operator has a right of appeal to the Appeal Board. Any appeal must be lodged within 30 days of the receipt of the Notice of Withdrawal.

5.2.3 The Operator should be aware that a notice of variation or withdrawal of this Accreditation Report is not itself an accreditation report and the right to appeal against HKCAAVQ's substantive determination regarding accreditation arises only from this Accreditation Report.

5.2.4 Please refer to Cap. 592A (http://www.legislation.gov.hk) for the appeal rules. Details of the appeal procedure are contained in section 13 of the AAVQO and can be accessed from the QF website at http://www.hkqf.gov.hk.

5.3 Qualifications Register

5.3.1 Qualifications accredited by HKCAAVQ are eligible for entry into the Qualifications Register ("QR") at http://www.hkqr.gov.hk for recognition under the QF. The Operator should apply separately to have their quality-assured qualifications entered into the QR.

5.3.2 Only learners who commence the study of the named accredited learning programme during the validity period and who have graduated with the named qualification listed in the QR will be considered to have acquired a qualification recognised under the HKQF.

Ref: 56/40/01
22 March 2024
Joc/RnL/rel

Appendix 1

The Hang Seng University of Hong Kong

Learning Programme Re-accreditation for
(i) Bachelor of Management Science and Information Management (Honours)
(ii) Bachelor of Science (Honours) in Data Science and Business Intelligence

10-12 January 2024

Panel Membership

Panel Chair

Professor HEALEY Nigel
Vice President Global and Community Engagement
The University of Limerick
IRELAND

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Professor LI Tianyi
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* The Panel Secretary is also a member of the Accreditation Panel

Appendix 2

Graduate Profile of Bachelor of Management Science and Information Management (Honours)

Qualification Title	Bachelor of Management Science and Information Management (Honours) 管理科學與資訊管理(榮譽)學士 ***see Remarks***
Qualification Type	Bachelor Degree
QF Level	5
Primary Area of Study and Training	Business and Management
Sub-area (Primary Area of Study and Training)	General Business Management
Other Area of Study and Training	Computer Science and Information Technology
Sub-area (Other Area of Study and Training)	Computer Science and Information Technology
Programme Objectives (POs)	The Programme Objectives aims to: 1) develop students' analytical power, creativity, critical thinking and problem-solving ability; 2) cultivate students' communication, interpersonal, leadership, transferable skills and independent learning so as to continue professional & personal development and/or further studies; 3) instil in students a strong sense of social responsibility and high commitment to professional ethics; 4) arouse students' awareness of global issues and developments; 5) gain a solid foundation of the principles, technical and theoretical knowledge required in the professional fields of Management Science, Information Management and Business Administration;

	6) obtain and apply interdisciplinary and multi-disciplinary knowledge of a range of quantitative and qualitative methods as well as conceptual, specialised, technical and creative subject-related skills to aid in business decision making; 7) to integrate information technology and management science concepts and tools with managerial skills appropriately and effectively in supporting complex business analysis and operations.
Programme Intended Learning Outcomes (PILOs)	Upon completion of the Programme, students should be able to: 1) address professional and personal challenges through the application of interdisciplinary and multi-disciplinary knowledge acquired; 2) possess effective communication ability in a business environment, work as a team player to integrate effectively the skills and knowledge developed, and be able to manage independent lifelong learning; 3) evaluate own contributions and responsibilities in becoming responsible employees, business leaders and business partners; 4) possess broad horizons and be inquisitive about various global issues and developments such as politics, cultures, social sciences and technologies; 5) possess solid knowledge and skills in Management Science, Information Management and Business Administration, which will enable them to undertake further study in the above three disciplines or to pursue a career with related knowledge requirements; 6) apply appropriately a range of quantitative and qualitative methods as well as conceptual, specialised, technical and creative subject-related skills in dealing with business issues; 7) critically analyse, evaluate and synthesise information, ideas and concepts, and apply information technology and management science concepts and tools appropriately and effectively

	for operation analysis and managerial decision-making.
Education Pathways	Graduates of the Programme may pursue further study towards advanced academic and professional degrees in Management Science and Information Management in Hong Kong or abroad. Graduates may also pursue professional qualification examinations, such as Project Management Professional (PMP), Six Sigma Quality Management, SAP Certifications, SAS (Joint Certificate in Data Mining), Certified Information Systems Auditor (CISA), Oracle Certified Professional (Database), Java/ Python/Frontend Certification, and Associate Software Development Certification, QlikView Business Analyst Certification, and Google Fundamentals of Digital Marketing.
Employment Pathways	Graduates of the Programme are prepared to undertake employment in roles such as Business/ System/ Data Analyst, Business/ Digital/ Information Security Consultant, and Business/Mobile Apps Developer.

Minimum Admission Requirements	Year 1 Standard Entry Attainment of Level 3 or above in Chinese Language and English Language, Level 2 or above in Mathematics (Compulsory), "Attained" in Citizenship and Social Development and Level 2 in one elective subject in the Hong Kong Diploma of Secondary Education (HKDSE) Examination. Year 3 Standard Entry Applicants should have completed an Associate Degree (AD) or Higher Diploma (HD) in a related discipline from a recognised institution in Hong Kong or overseas, with a minimum cumulative GPA of 2.50 or equivalent. Non-Local Entry Applicants with non-local qualifications are considered on a case-by-case basis according to the criteria for admission as set out by HSUHK. Non-Standard Entry Applicants whose academic attainment did not reach the minimum requirement or mature applicants aged 23 or above on 1 September when admission is sought, with a minimum of 2 years' work experience in their chosen field of study or demonstrated ability to pursue their chosen field of study may apply for admission on non-standard entry. Admission will be considered on a case-by-case basis
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Remarks: Subject to the approval from CE in Council, the qualification title will be changed from Bachelor of Management Science and Information Management (Honours) 管理科學與資訊管理 (榮譽) 學士 to Bachelor of Science (Honours) in Business Analytics and Information Management 商業分析與資訊管理（榮譽）理學士; Year 1 students will be admitted in AY2025/26, and Year 3 students in AY2027/28.

Appendix 3

Graduate Profile of Bachelor of Science (Honours) in Data Science and Business Intelligence

Qualification Title	Bachelor of Science (Honours) in Data Science and Business Intelligence 數據科學及商業智能學(榮譽)理學士
Qualification Type	Bachelor Degree
QF Level	5
Primary Area of Study and Training	Sciences
Sub-area (Primary Area of Study and Training)	Mathematics and Statistics
Other Area of Study and Training	Business and Management
Sub-area (Other Area of Study and Training)	General Business Management
Programme Objectives (POs)	The Programme Objectives aim to: 1) develop students' creativity, critical thinking, analytical ability and problem-solving skills; 2) cultivate students' communication, interpersonal, leadership, independent learning and other transferable skills; 3) instil in students a strong sense of social responsibility and high commitment to business ethics; 4) enhance students' global awareness and local sensitivity; 5) provide students with a solid foundation of the conceptual, theoretical and practical knowledge in the fields of Data Science and Business Intelligence, supplemented with Business Administration, required for various business purposes;

	6) train students to synthesise, manage and evaluate data together with the use of information technology to convey analytical results from data processing tasks for business decision making; and 7) build up students' ability to understand the importance of the applications of Data Science and Business Intelligence in their daily life, particularly in commercial areas.
Programme Intended Learning Outcomes (PILOs)	Upon completion of the Programme, students should be able to: 1) address professional and personal challenges through the application of inter-disciplinary and multi-disciplinary knowledge acquired; 2) possess effective communication ability in a business environment, work as a team player to integrate effectively the skills and knowledge developed, and be able to manage independent lifelong learning; 3) evaluate own contributions and responsibilities in becoming responsible employees, business leaders and business partners; 4) possess broad horizons and be inquisitive about various global issues and developments such as politics, cultures, social sciences and technologies; 5) possess the conceptual and practical knowledge and skills in Data Science and Business Intelligence as well as the solid foundation in Business Administration, which will enable them to undertake further study in the aforementioned disciplines or to pursue a career with related knowledge requirements; 6) synthesise, manage and evaluate data, and apply information technology tools for data analysis to solve business problems; and 7) integrate and apply the knowledge appropriately in Data Science and Business Intelligence for solving practical problems in a dynamic business environment.

Education Pathways	Graduates of the Programme may pursue further study towards advanced academic and professional degrees in Data Science and Business Intelligence in Hong Kong or abroad, such as: • MSc in Data Science and Business Statistics • MSc in Risk Management Science • MSc in Operational Research and Business Statistics
Employment Pathways	Graduates of the Programme are prepared to undertake employment in positions related to Data/ Business Analysis and Consultation, Banking and Finance, Marketing/ Scientific and Social Research.
Minimum admission requirements	<u>Year 1 Standard Entry</u> Attainment of Level 3 or above in Chinese Language and English Language, Level 2 or above in Mathematics (Compulsory), "Attained" in Citizenship and Social Development and Level 2 in one elective subject in the Hong Kong Diploma of Secondary Education (HKDSE) Examination. <u>Year 3 Standard Entry</u> Applicants should have completed an Associate Degree (AD) or Higher Diploma (HD) in a related discipline from a recognised institution in Hong Kong or overseas, with a minimum cumulative GPA of 2.50 or equivalent. <u>Non-Local Entry</u> Applicants with non-local qualifications are considered on a case-by-case basis according to the criteria for admission as set out by HSUHK. <u>Non-Standard Entry</u> Applicants whose academic attainment did not reach the minimum requirement <u>or</u> mature applicants aged 23 or above on 1 September when admission is sought, with a minimum of 2 years' work experience in their chosen field of study or demonstrated ability to pursue their chosen field of study may apply for admission on non-standard entry. Admission will be considered on a case-by-case basis.
Operator	The Hang Seng University of Hong Kong 香港恒生大學

Appendix 4

Graduate Profile of Bachelor of Science (Honours) in Business Analytics and Information Management (w.e.f. AY 2028/29 onwards)

Qualification Title	Bachelor of Science (Honours) in Business Analytics and Information Management 商業分析與資訊管理（榮譽）理學士
Qualification Type	Bachelor Degree
QF Level	5
Primary Area of Study and Training	Business and Management
Sub-area (Primary Area of Study and Training)	General Business Management
Other Area of Study and Training	Computer Science and Information Technology
Sub-area (Other Area of Study and Training)	Computer Science and Information Technology
Programme Objectives (POs)	The Programme Objectives aims to: 1) develop students' analytical power, creativity, critical thinking and problem-solving ability; 2) cultivate students' communication, interpersonal, leadership, transferable skills and independent learning to continue professional & personal development and/or further studies; 3) instil in students a strong sense of social responsibility and high commitment to professional ethics; 4) raise students' awareness of global issues and developments; 5) gain a solid foundation of the principles, technical and theoretical knowledge required in the professional fields of Business Analytics, Information Management and Business Administration;

	6) obtain and apply interdisciplinary and multi-disciplinary knowledge of a range of quantitative and qualitative methods as well as conceptual, specialised, technical and creative subject-related skills to aid in business decision making; and 7) integrate information technology, business functions and analytics concepts and tools with managerial skills effectively to support complex business analysis and operations.
Programme Intended Learning Outcomes (PILOs)	Upon completion of the Programme, students should be able to: 1) address professional and personal challenges through the application of interdisciplinary and multi-disciplinary knowledge acquired; 2) possess effective communication ability in a business environment, work as a team player to integrate effectively the skills and knowledge developed, and be able to manage independent lifelong learning; 3) evaluate own contributions and responsibilities in becoming responsible employees, business leaders and business partners; 4) possess broad horizons and be inquisitive about various global issues and developments such as politics, cultures, social sciences and technologies; 5) possess solid knowledge and skills in Business Analytics, Information Management and Business Administration, which will enable students to undertake further study in the above three disciplines or to pursue a career with related knowledge requirements; 6) apply appropriately a range of quantitative and qualitative methods as well as conceptual, specialised, technical and creative subject-related skills in dealing with business issues; and 7) critically collect, analyse, evaluate and synthesise data, information, ideas and business management concepts, and apply information technology skills and analytics software tools

	appropriately and effectively for operation analysis and managerial decision making.
Education Pathways	Graduates of the Programme may pursue further study towards advanced academic and professional degrees in Business Analytics and Information Management in Hong Kong or abroad. Graduates may also pursue professional qualification examinations, such as Project Management Professional (PMP), Six Sigma Quality Management, SAP Certifications, SAS (Joint Certificate in Data Mining), Certified Information Systems Auditor (CISA), Oracle Certified Professional (Database), Java/ Python/Frontend Certification, and Associate Software Development Certification., Qlik View Business Analyst Certification, and Google Fundamental Digital Marketing.
Employment Pathways	Graduates of the Programme are prepared to undertake employment in roles such as Business/ System/ Data Analyst, Business/ Digital/ Information Security Consultant, and Business/Mobile Apps Developer.

Minimum Admission Requirements	Year 1 Standard Entry Attainment of Level 3 or above in Chinese Language and English Language, Level 2 or above in Mathematics (Compulsory), "Attained" in Citizenship and Social Development and Level 2 in one elective subject in the Hong Kong Diploma of Secondary Education (HKDSE) Examination. Year 3 Standard Entry Applicants should have completed an Associate Degree (AD) or Higher Diploma (HD) in a related discipline from a recognised institution in Hong Kong or overseas, with a minimum cumulative GPA of 2.50 or equivalent. Non-Local Entry Applicants with non-local qualifications are considered on a case-by-case basis according to the criteria for admission as set out by HSUHK. Non-Standard Entry Applicants whose academic attainment did not reach the minimum requirement or mature applicants aged 23 or above on 1 September when admission is sought, with a minimum of 2 years' work experience in their chosen field of study or demonstrated ability to pursue their chosen field of study may apply for admission on non-standard entry. Admission will be considered on a case-by-case basis
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