



NVAO • NETHERLANDS

WO-BACHELOR BUSINESS ANALYTICS

Maastricht University

PANEL REPORT



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Maastricht University

LIMITED INITIAL ACCREDITATION
PANEL REPORT

18 MARCH 2020



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1 Executive summary

The Accreditation Organisation of the Netherlands and Flanders (NVAO) received a request for an initial accreditation procedure regarding a proposed wo-bachelor Business Analytics at Maastricht University. NVAO convened an expert panel, which studied the information available and discussed the proposed programme with representatives of the institution and the programme during a site visit.

The following considerations have played an important role in the panel's assessment.

The bachelor's programme Business Analytics is a three-year, English taught programme designed for students who aim to obtain business and data analyst positions in the dynamic business world. The programme aims to equip students with on the one hand a solid foundation in mathematics, statistics and analytical skills and on the other hand with knowledge and skills in the areas of different business approaches. The programme is offered by and under responsibility of Maastricht University's School of Business and Economics (SBE).

SBE has set four intended learning goals translated in programme objectives that describe how students realize the learning goals in the context of the programme Business Analytics. These objectives are connected to the courses and projects by means of a curriculum map. The panel is convinced that the programme meets a societal as well as an academic need and will in various ways offer an important, new addition to the existing bachelor programmes in the field of the business and data science. According to the panel the intended learning outcomes, organized along the lines of the Dublin descriptors, comply with the level and orientation for a bachelor programme. However, the panel suggests the programme management to express the aim of the programme and to which types of jobs these are leading with more clarity in further written communication.

An important part of the programme consists of analytical and business economics courses which are explicitly integrated with each other. In the first year, an introduction in business analytics is offered. In addition, students get fundamental, analytical courses such as calculus, algebra, probability and statistics combined with data mining applied to the contexts of marketing and finance. After the first year, this foundation is expanded by going deeper into machine learning, algorithms and programming. Also, ethical, legal, social, philosophical, and privacy-related data challenges are dealt with in depth. In the third year, students are obliged to study abroad. After the study abroad, students follow elective courses and conduct a research project or internship. The final phase of the programme is the individual bachelor's thesis.

Concerning the teaching-learning environment, the panel is convinced that the curriculum reflects the intended profile and the aim to teach students to work in a multidisciplinary manner. The panel noted that the intended learning outcomes are clearly linked to specific elements of the programme. According to the panel the content of courses is focused on practice, but the academic orientation of the programme receives sufficient attention. However, it suggests to pay more attention to the topics 'access to data', 'data wrangling' and 'quality of data'. Furthermore, it advises the programme to monitor the quality of the study abroad programmes at the partner universities.

Most teaching is provided by core lecturers who are affiliated with SBE. All lecturers in the programme are obliged to achieve the University Teacher Qualification (UTQ) and are required to have C1 Cambridge English language proficiency. According to the panel, all lecturers have a lot of experience in various fields related to business and analytics. The international nature of the programme is mirrored by the staff. The panel applauds the Learning Academy who supports lecturers in their continuous professional development.

With regard to the assessment system, the panel established that the programme has a solid Faculty-wide assessment policy in place. The programme assessment is characterized by a wide variety of assessments. The panel is pleased that two independent supervisors will assess the thesis. To ensure the multi-disciplinary nature of the thesis, the panel suggests to designate both a supervisor from the business field and a supervisor from the data science field.

The Board of Examiners is considered to be well-prepared for its tasks and able to safeguard the quality of examinations.

The panel comes to the conclusion that the programme meets all assessments standards. Given these considerations, the panel advises NVAO to take a positive decision regarding the quality of the proposed programme wo-bachelor Business Analytics at Maastricht University

The Hague, 18 March, 2020

On behalf of the assessment panel convened for the initial limited accreditation assessment of the wo-bachelor Business Analytics at Maastricht University,

Jaap Wieringa
(Chair)

Annemarie Venemans
(Secretary)

2 Introduction

2.1 The procedure

NVAO received a request for an initial accreditation procedure including programme documents regarding a proposed wo-bachelor Business Analytics. The request was received on 20 August 2019 from Maastricht University.

An initial accreditation procedure is required when a recognised institution wants to award a recognised bachelor's or master's degree after the successful completion of a study programme. The procedure for initial accreditation is slightly different as compared to the approach for programmes that have already been accredited. Initial accreditation is in fact an ex ante assessment of a programme. The programme becomes subject to the normal accreditation procedures once initial accreditation has been granted.

To assess the programme, the NVAO convened an international panel of experts. The panel consisted of:

Chair

- Jaap Wieringa

Panel members

- Sofie De Broe

- Eric van Heck

Student member

- Duco Mülder

On behalf of the NVAO, Reina Louw and Annemarie Venemans were responsible for the process-coordination and the drafting of the experts' report.

This composition reflects the expertise deemed necessary by NVAO. All the panel members signed a statement of independence and confidentiality.

The panel has based its assessment on the standards and criteria described in the NVAO Assessment framework for the higher education accreditation system of the Netherlands (Strct. 2019, nr 3198).

The following procedure was undertaken. The panel members prepared the assessment by analysing the documents provided by the institution (Annex 3: Documents reviewed). The panel organised a preparatory meeting on February 10, the day before the site visit. During this meeting, the panel members shared their first impressions and formulated questions for the site visit.

The site visit took place on February 11, 2020, at Maastricht University. During this visit, the panel was able to discuss the formulated questions and to gather additional information during several sessions (Annex 2: Schedule of the site visit). Afterwards, the panel discussed the findings and considerations and pronounced its preliminary assessments per theme and standard. At the end of the site visit, the initial findings were presented to the institution.

Based on the findings, considerations, and conclusions the secretary wrote a draft advisory report that was first presented to the panel members. After the panel members had commented on the draft report, the chair endorsed the report. On March 5th the advisory report was sent to the institution, which was given the opportunity to respond to any factual inaccuracies in the report. The institution replied on March 17th. All suggested corrections were adopted. Subsequently the final report was endorsed by the panel chair. The panel composed its advice fully independently and offered it to NVAO on March 18th.

2.2 Panel report

The first chapter of this report is the executive summary of the report, while the current chapter is the introduction.

The third chapter gives a description of the programme including its position within the institution, the Maastricht University and within the higher education system of the Netherlands.

The panel presents its assessments in the fourth chapter. The programme is assessed by assessing the themes and standards in the Initial Accreditation Framework. For each standard the panel presents an outline of its findings, considerations and a conclusion.

The outline of the findings are the objective facts as found by the panel in the programme documents, in the additional documents and during the site visit. The panel's considerations consist of the panel's judgments and subjective evaluations regarding these findings and their relative importance. The considerations presented by the panel are at the basis of a concluding overall assessment.

The panel concludes the report with a table containing an overview of its assessments per standard.

3 Description of the programme

3.1 General

Country	Netherlands
Institution	Maastricht University
Programme	Business Analytics
Level	wo-bachelor
Orientation	bachelor
Specialisation	does not apply
Degree	Bachelor of Science
Location	Maastricht
Study Load (EC)	180 EC
Field of Study	Economy

3.2 Profile of the institution

Maastricht University (UM) was founded in 1976 and stands out for its innovative approach to learning by means of application of the Problem-Based Learning model. The university has an international focus, with almost half of the 18,000 students and a third of the 4,400 academic staff coming from abroad. UM offers almost twenty bachelor's programmes and more than sixty master's programmes that are mostly taught in English. The content of both education and research at UM is deeply rooted in European and broader international themes.

The university is organized in six faculties and schools, related to Arts and Social Sciences, Health, Medicine and Life Sciences, Science and Engineering, Psychology and Neuroscience, Law, and Business and Economics. Research and education at UM have a thematic, multidisciplinary nature, inspired by topical issues such as sustainability, European integration, healthy ageing, and the influence of technological developments on society. Researchers work in multidisciplinary teams, in close collaboration with national and international institutions, companies, and industry.

3.3 Profile of the programme

The programme Business Analytics of Maastricht University (UM) School of Business and Economics (SBE) is a three-year academic, English-taught, bachelor programme (180 EC). The programme is designed for students who aim to obtain business and data analyst positions in the dynamic business world. The combination and integration of business administration with analytical knowledge and skills, combined with the necessary communication skills, ultimately leads to insights into and development of new business solutions based on big data domains.

The programme consists of analytical and business economics courses. In the first year, an introduction in business analytics is offered. In addition, students get basic courses such as calculus, algebra and probability and statistics combined with data mining applied to the contexts of marketing and finance. After the first year, this foundation is expanded by going deeper into machine learning, algorithms and programming. Also, ethical, legal, social, philosophical, and privacy-related challenges that come from data are dealt with in depth. The third year consists of studying abroad, electives, internship or research project and thesis.

Graduates of the programme can work as a business data analyst, business data architect or analytic translator. Possible in-house master's programmes for which graduates are eligible include the master programmes in International Business specialisation Information Management and Business Intelligence, Business Intelligence and Smart Services, and Econometrics and

Operations Research). Students are also eligible for, for example, the master's programme in Business Analytics at the VU University.

4 Assessment per standard

This chapter presents the evaluation of the standards by the assessment panel. The panel has reproduced the criteria for each standard. For each standard the panel presents (1) a brief outline of its findings based on the programme documents and on documents provided by the institution and the site visit, (2) the considerations the panel has taken into account, and (3) the panel's conclusion. The panel presents a conclusion for each of the standards, as well as a final conclusion.

The assessment is based on the standards and criteria described in the NVAO Assessment framework for the higher education accreditation system of the Netherlands (Stcrt. 2019, nr 3198). Fundamental to the assessment is a discussion with peers regarding the content and quality of the new programme.

Regarding each of the standards, the assessment panel gives a substantiated judgement on a three-point scale: meets, does not meet or partially meets the standard. The panel subsequently gives a substantiated final conclusion regarding the quality of the programme, also on a three-point scale: positive, conditionally positive or negative

4.1 Standard 1: Intended learning outcomes

The intended learning outcomes tie in with the level and orientation of the programme; they are geared to the expectations of the professional field, the discipline, and international requirements.

Outline of findings

The bachelor's programme Business Analytics aims to equip students with a solid foundation in mathematics, statistics and analytical skills and with knowledge and skills in the areas of different business approaches. The programme uses the model of McKinsey that states that business skills, technical skills, and analytic skills are the key to success and scalability when it comes to carrying out business analytics projects.

During the site visit it became clear that the programme is a multidisciplinary, specialized programme on the interface of business and analytics. Students are not to be expected to develop tools and methods but to know how to use these. Graduates of the programme can work as a business data analyst, business data architect or analytic translator. Possible in-house master's programmes for which graduates are eligible include the master programmes in International Business specialisation Information Management and Business Intelligence, Business Intelligence & Smart Services, and Econometrics and Operations Research.

In the design stage of the programme, the staff has consulted representatives from the academic and professional field of business analytics in an informal way. At the time of the site visit, no Advisory Board was installed, yet.

Representatives of the professional field the panel spoke with during the site visit, explained that the professional field is increasingly asking for business people who are capable of extracting data. The programme intends to install an Advisory Board consisting of representatives from the working field.

The School of Business and Economics (SBE) has set four intended learning goals, which reflect both the University's distinguishing features and the Dublin Descriptors:

- SBE graduates are able to develop insights based on academic knowledge in a self-directed manner.
- SBE graduates are able to demonstrate an academic attitude
- SBE graduates are able to actively engage in the global community in a responsible manner
- SBE graduates demonstrate excellent interpersonal competences in an international professional setting

Each of these goals is translated at the programme-level intended learning outcomes (programme objectives) that describe how students realize the learning goals in the context of the programme Business Analytics. They are connected to the courses and projects by means of a curriculum map.

Considerations

The information dossier and additional written information have convinced the panel that the Business Analytics programme meets a societal as well as an academic need and will in various ways offer an important, new addition to the existing bachelor programmes in the field of the business and data science. According to the panel the intended learning outcomes, organized along the lines of the Dublin descriptors, comply with the level and orientation for a bachelor programme as defined in the Dutch qualifications framework (NLQF). The panel appreciates the combination of the academic bachelor's level with the practical orientation of the programme and the multidisciplinary approach. In addition, it applauds the international orientation.

During the site visit the programme management well explained that the aim of the bachelor's programme was to train professionals that bridge the gap between data science and business. However, the panel had some questions regarding the formulation of the aim of the programme in the written documentation it received. It suggests the programme management to formulate the aim of the programme and to which types of jobs these are leading more clearly in further communication both to students and the professional field. In addition, communication to students about matching master programmes can be improved.

As the university has intensive contacts with the professional field and the academic field the panel is convinced that the intended learning outcomes meet the requirements of the professional field content-wise. The panel encourages the planned formation of an Advisory Board with external members before the start of the programme. The panel believes that this connection to industrial and governmental partners, including the Brightlands Smart Services Campus is a good way to promote the programme, essential to provide the students access to real world data, and also a guarantee to match the needs of the corporate world with the learning outcomes of the programme on a regular basis.

Conclusion

The programme meets standard 1.

4.2 Standard 2: Teaching-learning environment

The curriculum, the teaching-learning environment and the quality of the teaching staff enable the incoming students to achieve the intended learning outcomes.

Outline of findings

Student intake

The programme is expected to be attractive for Dutch and international students with an interest in using data and technology to solve business problems. In order to be admitted, candidates are expected to hold a Dutch VWO diploma with a mathematics B level. Students with a non-Dutch diploma that is equivalent to the Dutch VWO diploma with a comparable mathematics level will be admitted as well.

Curriculum

An overview of the curriculum is presented in the table below.

Introduction to Business & Data Science			Year 1
Business themes of the year: Marketing and Finance	Data Science: Mathematics Statistics Data Mining	Applications: eLab on business data retrieval, visualization and knowledge discovery	
Business themes: Accounting, Information	Data Science: Machine Learning, Modelling,	Applications: eLab on data-intensive business solution design	Year 2

management and Operations	Programming and Computing		
Responsible data use			
Study abroad: Internationalisation			Year 3
Application of data science in business: electives and thesis			

The curriculum is built on three pillars. In the first pillar, students learn mathematical, statistical and computer science methods. In the second pillar, they become knowledgeable in areas of business applications. The third pillar of approach is the ability to bridge/ communicate technical sciences and business disciplines. Furthermore, at the end of each year students apply learnt methods in the business case studies (eLabs).

In the first year, a solid knowledge base in data science is offered which is applied to the business contexts of marketing and finance. This foundation is deepened in the second year. Aspects of Information Management such as business architecture with the design of the business' operating model and digital platform could be placed in a more prominent role in the second year. Responsible data use is an important topic throughout the curriculum and especially in a course during the second year.

In the third year, students are obliged to study abroad. SBE has around 160 exchange contracts with universities and institutions in 45 countries all over the world. After the study abroad they follow elective courses and conduct a research project or internship, for example, at the Brightlands Smart Services Campus. The final phase of the programme is the bachelor's thesis. During the bachelor's thesis each student conducts a short scientific (empirical or theoretical) research project focussed on a relevant topic. The internship or research project can be used to collect data for the thesis.

The information dossier contained course modules of the first two years and a curriculum map demonstrating how the intended learning outcomes are reflected in the curriculum components. This overview shows that all programme objectives are addressed in the curriculum. The committee observed that academic activities relating to research are clearly represented in the curriculum through eLabs and the bachelor's thesis.

Teaching and examinations will be conducted in English due to the specific educational nature and profile of the programme. This choice contributes to the employability of graduates that operate in a global context. This choice also fits with SBE's academic community which is internationally oriented and whose staff is international.

Didactical concept

The didactical principle of all programmes at Maastricht University is Problem-Based Learning (PBL). Under the supervision of a tutor, students work in small tutorial groups where they tackle real-life challenges. The tutorial groups consist of 10-15 students from different cultural backgrounds and with various international experiences. During the panel meeting the programme explained that the exact form of PBL differs per course. For example, the mathematics course used case-based learning which is a variant of PBL. However, the four principles of PBL, such as self-directed education and collaborative learning are present in all courses.

Students from other SBE programmes the panel met during the site visit, expressed their appreciation for PBL. According to the students this concept functions well, mainly as a result of active participation of the students.

Staff

The information dossier provides a list of staff members who will be teaching in the programme. Most teaching is provided by core lecturers who are affiliated with SBE. Part of the staff members will come from the new department of SBE: Data Analytics and Digitization (DAD).

The panel studied the profile of staff members who will lecture in the programme and met some of the core staff members. The team of lecturers jointly has a lot of experience in various fields related to business and analytics. The international nature of the programme is mirrored by the staff. All lecturers in the programme are obliged to achieve the University Teacher Qualification (UTQ) and are required to have C1 Cambridge English language proficiency.

SBE offers teaching support by means of the SBE Learning Academy. The Learning Academy is responsible for supporting lecturers in their continuous professional development. At University level, SBE staff is also offered training on continuing professional development.

The Programme Committee, in which academic staff and students equally participate to advise on the improvement and the assurance of the educational quality of the SBE programmes, meets regularly in order to discuss the curriculum, to give the right of consent on parts of the Education and Examination Regulations, to evaluate the courses, and to advise the programme directors on improvements. It was involved in the Business Analytics programme from the start of the development.

Facilities

Lecturing will take place in the facilities of SBE at Tongersestraat 53 in Maastricht. During a short tour, the panel could view this location with its multifunctional spaces for small and large groups. For the latest software and hardware facilities, the programme can make use of computational cluster of the Institute of Data Science.

Considerations

According to the panel, the entry requirements of the programme fit well with the desirable student population. The panel endorses the requirement of a mathematics B level to enroll in the programme.

The panel was able to gain detailed insight in the curriculum and considers this to be clear, well developed and internally consistent. The programme has a logical composition and the different courses complement one another. It clearly reflects the intended profile and the aim to teach students to work in a multidisciplinary manner. The inclusion of the eLabs is a very good choice. The panel noted that the intended learning outcomes are clearly linked to specific elements of the programme. The panel established that the content of courses is focused on practice, but that the academic orientation of the programme receives sufficient attention - in line with the intended learning outcomes.

The panel had some concern about the relatively small amount of attention in the curriculum that is devoted to access to data, data wrangling and quality of data. It recommends the programme to incorporate these topics in the curriculum.

The panel is pleased with the opportunity given to the students to study abroad, but it advises the programme to closely monitor the quality as well as the relevance of courses that are chosen at the partner universities with the new bachelor programme. The mandatory character of studying abroad might not appeal to all students, but this requirement is proactively communicated to prospective students, hence is not an issue to the panel.

Given the vast experience of Maastricht University with PBL the panel has no doubt that students will receive a curriculum according to a well-developed educational concept. It is pleased that the programme makes use of the principles of PBL but does this in a flexible way. In this way, the panel is convinced that this active and student-focused learning will be suitable for the programme.

The committee recognises the staff's scientific quality, national and international academic reputation and lecturing experience. A majority of the lecturing staff holds a PhD and carries out research, which contributes to the development of their discipline as well as to the other disciplines of the bachelor's programme. The panel is of the opinion that the staff acts as a team in the development of this programme: the courses the members developed are well aligned and several staff members are already cooperating by conducting research together. The panel was impressed by the support given to the staff by means of a Learning Academy.

The panel concludes that the curriculum, didactical concept and the faculty constitute a coherent, attractive and stimulating teaching-learning environment for the students. This enables the students to achieve the intended learning outcomes.

Conclusion

The programme meets standard 2

4.3 Standard 3: Assessment

The programme has an adequate system of student assessment in place.

Outline of findings

Assessment system

The assessment system of the programme is based on the Faculty assessment policy of SBE. This policy builds on four pillars:

- Striving for constructive alignment between programme objectives, teaching activities and assessment tasks;
- Embedding assessment of learning, assessment for learning and assessment as learning approaches in education programmes;
- Fostering student engagement in learning and assessment;
- Continuous development of assessment.

The programme uses a multitude of assessment methods such as papers, written exams, participation, presentation and thesis. The assessment of individual courses is based on a mix of assessments. For each course the assessment modes and grading procedures are described in the course manual, including the relative weighting of course components. During the site visit, the panel studied examples of exams of several courses. Part of the exams are multiple choice exams. There are good experiences with such exams in other programmes of SBE. Lecturers will get assistance in the development of such exams. In addition, assessment is part of the UTQ.

Students complete the bachelor's programme with a bachelor's thesis. The supervisor and a second reader independently assess the bachelor's thesis. The panel studied the assessment form that is used in order to ensure valid and reliable assessment of the thesis. In addition, the panel studied the bachelor thesis code of practice protocol that describes the rules and procedures for the thesis process of the various bachelor's programmes offered by SBE.

Board of Examiners

One independent Board of Examiners (BoE), whose members are appointed by the SBE Board, covers all SBE degree programmes. This ensures equal treatment across all programmes but also requires the Board of Examiners to stick very closely to the rules. The BoE is responsible for implementing the SBE's Education and Examination Regulations, establishing guidelines and instructions within the framework of these regulations, issuing certificates and guaranteeing the quality of exams. The BoE handles exemption requests and complaints relating to test results. It also appoints the examiners responsible for conducting tests and exams. Next to the BoE there is an Assessment Committee (AC), also at the SBE level, which monitors the quality of the assessment process.

Considerations

The panel established that the programme has a solid assessment system in place. The variety of assessment methods, both within and across courses, will be useful to guide the students' learning process and to test their results. The panel is satisfied with the sample assessments as provided. They apply a good combination of methods, show a superb balance and are appropriate for the level and contents of the programme. The panel noted that members of the assessment committee have sufficient knowledge of the development of multiple-choice exams.

According to the panel, the assessment procedure of the bachelor's thesis is in place. The panel is pleased that two independent supervisors will assess the thesis. To ensure the multidisciplinary nature of the thesis, the panel suggests to designate both a supervisor from the business field and a supervisor from the data science field.

The discussion with the representative from the Board of Examiners convinced the panel that this board is well aware of its duties and responsibilities and will continue to function adequately when the new programme is up and running.

Conclusion

The programme meets standard 3.

4.4 Qualification and field of study (CROHO)

The panel advises to award the degree 'Bachelor of Science' to the wo-bachelor Business Analytics of Maastricht University. The panel supports the programme's preference for the CROHO field of study 'economie'.

4.5 Conclusion

On the basis of the information dossier, additional information provided by the programme and discussions during the site visit, the panel concludes that the intended learning outcomes (standard 1), the teaching- learning environment (standard 2), and the assessment system (standard 3) meet the criteria. The curriculum, the teaching methods, the quality of the teaching staff, and the facilities enable the incoming students to achieve the intended learning outcomes. The assessment system is well designed and the Board of Examiners is qualified and prepared for its task. The panel's final conclusion therefore is positive.

The panel advises the programme to consider the following suggestions:

- to formulate the aim of the programme more clearly in further communication both to students and the professional field;
- to incorporate the topics 'access to data', data wrangling' and 'quality of data' in the curriculum;
- to monitor monitor the quality of the study programmes abroad;
- to designate both a supervisor from the business field and a supervisor from the data science field.

5 Overview of the assessments

Standard	Assessment
Intended Learning outcomes <i>Standard 1: The intended learning outcomes tie in with the level and orientation of the programme; they are geared to the expectations of the professional field, the discipline, and international requirements</i>	Meets the standard
Teaching-learning environment <i>Standard 2: The curriculum, the teaching-learning environment and the quality of the teaching staff enable the incoming students to achieve the intended learning outcomes.</i>	Meets the standard
Student assessment <i>Standard 3: The programme has an adequate system of student assessment in place.</i>	Meets the standard
Conclusion	Positive

Appendix 1: Composition of the panel

Chair

Dhr. prof. dr. J.E. (Jaap) Wieringa

Member

Mevr. dr. S.M.M.G. (Sofie) De Broe MMG

Member

Dhr. prof. dr. ir. H.W.G.M. (Eric) van Heck

Member

Dhr. D.T. (Duco) Mulder

Secretaries

Dr. A. Venemans

MA. R. Louw (policy advisor, NVAO)

Appendix 2: Schedule of the site visit

The panel visited Maastricht University on February 11, 2020 as part of the external assessment procedure regarding the wo-bachelor Business Analytics.

08:30 – 09:00	Preparatory meeting
09:00 – 09:30	SBE Board
09:30 – 10:30	Programme management
10:30 – 10:45	Break
10:45 – 11:45	Faculty meeting
11:45 – 12:30	Board of Examiners, Programme Committee, Assessment Committee, Learning Academy, Community and Study Advising
12:30 – 13:30	Lunch and tour of facilities
13:30 – 14:00	Representatives work field
14:00 – 14:30	Interview with SBE's students
14:30 – 15:15	Panel meeting (confidential)
15:15 – 15:45	Programme Management (2nd meeting)
15:45 – 17:00	Panel meeting (confidential)
17:00	Presentation of initial findings

Appendix 3: Documents reviewed

Programme documents presented by the institution

- Information dossier
- Appendices to the information dossier:
 - o Course Descriptions Compulsory Courses
 - o Addendum to the NVAO Accreditation report
 - o Assessment form Bachelor thesis
 - o Info folder binding study advice
 - o BSc Business Analytics Curriculum Structure
 - o SBE Quality Assurance Handbook
 - o Binding Study Advice (BSA)
 - o SBE Complaints Regulations
 - o CVs academic staff BSc Business Analytics
 - o Handbook for Teaching Staff
 - o University Teacher Qualification
 - o The Advanced Teacher Training
 - o Information on PBL
 - o Student Services
 - o Employability
 - o Student Initiatives
 - o Course Manuals year 1
 - o Course Manuals year 2
 - o SBE Assessment Policy
 - o BSc Education and Examination Regulations
 - o BSc Thesis Code of Practice
 - o BSc Thesis Assessment Form
 - o MUSBE Assessment Policy 2019/2020
 - o Curriculum Map Business Analytics
 - o Assessment sample Finance
 - o Assessment sample Marketing and Business Analytics
 - o Assessment sample Programming
 - o Assessment sample Statistics
 - o Assessment sample Mathematical Analysis
 - o Assessment sample Knowledge Discovery and Data Visualization
 - o Assessment sample Database management
 - o Assessment sample Operations management

Appendix 4: List of abbreviations

AC	assessment committee
BSc	Bachelor of Science
BoE	Board of Examiners
DAD	Data Analytics and Digitization
EC	European credit point
hbo	professional higher education
Ma	master's degree
NVAO	Accreditation Organisation of the Netherlands and Flanders
PBL	Problem-Based Learning
SBE	School of Business and Economics
UM	Maastricht University
UTQ	University Teacher Qualification
wo	Academic orientation

The panel report was ordered by NVAO for the initial accreditation of the programme wo-bachelor Business Analytics of Maastricht University

Application no.: 008733



Nederlands-Vlaamse Accreditatieorganisatie
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