



EDUCATIONAL ASSESSMENT
LIMITED PROCEDURE
**Maritime and Air Transport
Management**

Advanced Master of Science in Maritime and Air Transport Management
at the University of Antwerp

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PART 1

General Section

EDUCATIONAL ASSESSMENT LIMITED PROCEDURE

Maritime and Air Transport Management

1 Introduction

In April 2015 an assessment panel reviewed the Advanced Master of Science in Transport and Maritime Management of the University of Antwerp. The panel's conclusions were published in May 2016 in the report "Economische en Toegepaste Economische Wetenschappen – Een evaluatie van de kwaliteit van de master-na-masteropleidingen in de Economische en Toegepaste Economische Wetenschappen aan de Vlaamse universiteiten".

Based on this report the study programme applied for accreditation from the Dutch-Flemish Accreditation Organisation (NVAO). In accordance with the Decree on the Structure of the Higher Education in Flanders, the University of Antwerp submitted a request, accompanied with an improvement plan. The advanced master programme received accreditation with limited validity, until the end of the academic year 2018-2019 (i.e., October 1, 2019).

After the previous assessment, not only was the name of the programme changed from "Advanced Master of Science in Transport and Maritime Management" to "Advanced Master of Science in Maritime and Air Transport Management", but its content was also completely revised.

2 Limited procedure

Before the expiration of the accreditation date, the study programme must reapply for accreditation. This limited accreditation procedure entails a self-evaluation report by the study programme, a site visit carried out by an independent panel of expert peers, and the publication of the panel's findings in an assessment report. With the resulting assessment report, the study programme can apply for accreditation by NVAO.

The reassessment is limited to the generic quality standards (GQS) that were evaluated as unsatisfactory in the first assessment:

- GQS 2: Educational learning environment
- GQS 3: Outcome level achieved

3 Composition of the panel

The assessment panel of Maritime and Air Transport Management consisted of four members. One of them was also a member of the previous assessment panel in 2016. The composition of the assessment panel was ratified on 16 June 2018 and 16 January 2019 by the VLUHR Quality Assurance Board. The NVAO sanctioned the panel composition on 27 August 2018. The VLUHR Quality Assurance Board subsequently installed the assessment panel by its decision of 25 January 2019.

The assessment panel was composed as follows:

- Chairman
 - **Bart Jourquin**, Professor at the Université Catholique de Louvain (UCLouvain), former Vice Rector of UCLouvain, rector of the Facultés Universitaires catholiques de Mons (FUCaM) and Director of the Louvain School of Management (Mons campus).
- Panel members:
 - **Heather McLaughlin**, Dean of the Faculty of Business and Law, Coventry University, UK and Full Professor of Management and International Transport
 - **Gianmaria Martini**, Professor of Applied Economics, Department of Economics and Technology Management, Università degli Studi di Bergamo, Italy
 - **Georgios Giannaros**, a master's student MSc in Shipping Management, Alba Graduate Business School, Greece

Stefanie Van der Jeugt, Policy Advisor Quality Assurance at the VLUHR Quality Assurance Unit, was the project manager and secretary of the panel.

The curriculum vitae of the panel members are attached (see Appendix 1).

4 Task of the assessment panel

For this reassessment, the programme prepared a self-evaluation report. The VLUHR Quality Assurance Unit received this report in December 2018 and distributed it to the panel members. The assessment panel had the opportunity to study the information stated in the self-evaluation report and to prepare the visit accurately.

The panel visited the programme on February 28 and March 1, 2019. During the visit, the panel had meetings with the programme management, students, teaching staff, alumni and professional representatives. The panel also had the opportunity to consult a representative set of study materials, master's dissertations and evaluation assignments and examination questions. The discussions were held in a very constructive way. The visit schedule can be found in Appendix 2.

Finally, the panel presented its findings and conclusions regarding the assessed standards in a draft report. This was done in accordance with the "VLUHR Manual for the external quality assurance in Flemish higher education, 2015". The draft was sent to the programme management under embargo for a response. The panel incorporated the reaction of the programme in its final report insofar it agreed with the remarks.

PART 2

Assessment report

UNIVERSITY OF ANTWERP

Advanced Master of Science in Maritime and Air Transport Management

1 Introduction

Since 2015 the Advanced Master of Science in Maritime and Air Transport Management (MATM) is a one-year, advanced master programme of 60 credits hosted by the Centre for Maritime and Air Transport Management (C-MAT). It is now fully integrated in the Faculty of Business and Economics (FBE) of the University of Antwerp.

The history of the programme goes back to 1996 when the Institute of Transport and Maritime Management Antwerp (ITMMA) was founded as an institute of cooperation between two faculties of Economics of the former universities RUCA and UFSIA. Within ITMMA the Advanced Master in Transport and Maritime Management (MTMM) was set up. The main objective of this programme was to help staff members become top managers who are able to cope with challenges of the international, competitive market in the transport and maritime sector. In 2003 the three Antwerp Universities (RUCA, UFSIA and UIA) merged into one university: the University of Antwerp. That same year ITMMA started a second advanced master programme, named Advanced Master in Transport and Maritime Economics (MTME). The main objective of this second programme was to prepare students for PhD research in the domain of transport and maritime economics.

In 2015, when the previous assessment took place, both programmes were in a transition phase. ITMMA, the MTMM programme and the MTME programme became part of the Faculty of Business and Economics. Furthermore, a major curriculum redesign for the programme had been accepted by the Education Board of the University of Antwerp and was planned to start in the academic year 2015-2016. The assessment panel of 2015 evaluated GQS 1 (targeted outcome level) as satisfactory for the MTMM programme and unsatisfactory for the MTME programme. GQS 2 (educational learning environment) and GQS 3 (outcome level achieved) were evaluated as unsatisfactory for the MTMM programme and the MTME programme. Several recommendations were made by the panel. The MTMM programme submitted an improvement plan to NVAO in 2016. After evaluation of the improvement plan, NVAO decided to grant the programme accreditation with limited validity until the end of the academic year 2018-2019. The MTME programme didn't receive accreditation and was discontinued.

After the previous assessment, ITMMA reconstituted and relaunched itself as C-MAT. In 2016-2017 the name of the MTMM programme changed from "Advanced Master of Science in Transport and Maritime Management" to "Advanced Master of Science in Maritime and Air Transport Management".

The reassessment panel (2019) was impressed by all the positive changes that followed after the first assessment in 2015. The panel considered the full integration of C-MAT and the MATM programme into the FBE as a quantum leap forward, meaning that all C-MAT activities are now embedded in the quality processes and procedures of the faculty. The redesign of the curriculum affected the programme in a positive way as well.

The number of enrolled students varies between 20 and 40 students, including students who re-enrol. About one third of them specialises in Air Transport and two third in Maritime Transport. In 2017-2018 the programme counted 27 new students.

2 Reassessment

GENERIC QUALITY STANDARD 2: EDUCATIONAL LEARNING ENVIRONMENT

The assessment panel evaluates the educational learning environment for the Advanced Master of Science in Maritime and Air Transport Management as satisfactory.

Assessment 2016

The panel was convinced that there was a structural misfit between the course content and the ambitions communicated by the programme. The panel based this conclusion on the following important elements. First, several core courses were taught at an introductory level. These courses were perceived to be on a bachelor's level rather than on an advanced master's level. Second, all courses were organised together although the two master programmes (MTMM and MTME) had a clearly different focus. Third, the entry criteria stated that work experience was required. In practice, a significant part of the students didn't have this experience, so it was difficult to teach at an executive level and to reach the aims of the programme. Consequently, the panel evaluated GQS 2 'Educational learning environment' as unsatisfactory.

Reassessment 2019

After the previous assessment, C-MAT invested in the redesign of the **curriculum** to tackle the remarks of the previous panel. The newly structured programme contains different specialisation tracks. Students can choose either to focus on management or on research. Furthermore, they have to choose between maritime transport and air transport. This results into four different tracks: (1) Maritime Transport Management, (2) Maritime Transport Research, (3) Air Transport Management, and (4) Air Transport Research. The main objective of the new programme is to help the management track students to become outstanding executives in transport-related companies and organisations and to help the research track student to become successful researchers in their transport-related field of choice. The panel is convinced that the revised programme offers clear pathways for students and, according to the students, these pathways are clearly communicated. Sixty credits are divided into four course categories: compulsory/general courses (9 credits), management or research fundamentals courses (18 credits), maritime transport or air transport courses (18 credits) and the master's dissertation (15 credits). All courses are taught in English. Students and alumni indicate that they were inspired to apply and attend the programme because of its uniqueness.

The programme formulated 8 core **competences** based on the six facets diamond that FBE-students are to be prepared for: the analyst, the coordinator, the creator, the inspirer, the strategist and the communicator. The faculty uses the metaphor of polishing a diamond to depict these roles. The core competences of the programme are matched with the first five roles. After analysing the structure and the content of the programme, the panel notes that the programme also focuses a lot of attention on communication (e.g., presentations and group assignments),

but the sixth role of the FBE polished diamond 'the communicator' isn't translated into a separate core competence of the programme. Even if, according to the self-evaluation report of the programme, the role of communicator is included in the role of inspirer, the panel suggests adding an extra core competence to make the communicator role more visible. Indeed, the panel identified more courses in which the communication skills are drilled than what is reported in the self-evaluation report.

The panel believes that the **content** of the programme enables students to achieve the core competences. To be more precise, the panel finds that all the courses are well chosen and designed and that relevant topics are discussed in each course. However, according to the panel, the presence of cross-cutting themes like sustainability or digitalisation could be better articulated in the programme. Each course is led by an academic course coordinator, who is responsible for its content, planning, evaluations and level. Guest lecturers and excursions are also his/her responsibility. The panel observes that the presence of the course coordinator has a positive influence on the content-related coherence within each course. The learning materials are sufficient. Students can find all necessary information about each course on Blackboard, the virtual learning environment chosen by the University of Antwerp.

The number of **enrolled students** varies between 20 and 40 students, including students who re-enrol. Reviewing the last three years, the programme had students of 28 different nationalities. About one third of them specialised in Air Transport and two third in Maritime Transport. In 2017-2018 the programme counted 27 new students. This increasing inflow rate can be partially explained by the new cooperation between C-MAT and the Shanghai Maritime University. The Chinese exchange students are registered as full-time students, but it's not their intention to complete the programme in Antwerp. They only follow particular courses as part of their own programme at the Shanghai Maritime University.

C-MAT's **academic staff** consists of 2,25 FTEs, distributed among 12 people. The overall quality of the staff is considered as being very good by the different stakeholders (students, alumni and professional representatives). Most of the staff members are recognised researchers in their field. Experts from the industry are involved in the programme through guest lectures. The panel observes a good balance between **academic and professional involvement** throughout the programme. The international network for the maritime transport track is identified as being very strong, and the panel encourages the programme to further develop the international network for the air transport track. Specific resource could be devoted to this task to accelerate the process.

In the panel's opinion, the **teaching and learning methods** are varied and innovative with some interesting use of business games (= simulated environments in which theory can be tested in real situations). A focus on industry engagement through case studies, projects, excursions and guest lectures was also identified. Although well received by students, the impression is that the air transport management track did not have the same level of professional representation as the maritime transport management track. This perception should be addressed by the programme in terms of clear communication to incoming students, so they know exactly what to expect. In spite of this recommendation, the panel is aware that the air transport track started from scratch only a few years ago and that it will take some time to build a solid, international network of recognised experts.

The programme draws **students from a wide international community**. Incoming students have different cultural backgrounds and different levels of experience. The panel was enthusiastic to learn how the diversity of students is brought into the programme. For example, students

can apply the course content to their country and share their knowledge during presentations. However, diversity also clearly causes challenges to the teaching team, particularly in the first semester, because it needs to deal with different ability levels and cultural differences.

During the interview with the students, the **workload** of the programme was discussed. The combination of following courses, working on assignments, preparing for examinations and writing a master's dissertation was described by them as challenging and difficult. The panel strongly recommends revising the timing of the master's dissertations. Students proposed to reorganise a few courses in order to free some time and to include a couple of free weeks at the end of the second semester to get their writing done properly. Another suggestion of the students concerns the timing for choosing their dissertation topic. Now students have to choose at the beginning of the first semester, but they would appreciate some extra time during the first semester to explore their specific interests. The panel agrees with this and generally advises balancing out the workload across the two semesters, as a better spread of the workload will give students the opportunity and the time to dive deeper into specific topics and to elaborate on them.

In comparison with the previous assessment, the **admission policy** is improved. All applicants must fill out an admission form, including a CV, an English test certificate, a translated diploma, a translated transcript of records, two reference letters and a motivation letter. All accepted students must meet the entry requirements: thorough knowledge of English and a university master's degree in a relevant domain. Students with a bachelor's degree can be admitted, but only if they have relevant work experience. If an applicant does not meet the requirements, he or she will be rejected immediately. If there is a doubt, the case is discussed at the admission board and an extra Skype meeting takes place to assess the applicant's motivation and his or her language proficiency. The panel appreciates that the programme has undertaken action to assure that enrolling students have the necessary background knowledge to succeed.

Services and facilities are spontaneously cited by students and staff as a very strong characteristic of C-MAT. Both academic and pastoral support is rated high by students. Before the start of the programme, students can enrol in economic crash courses to get themselves up to speed concerning basic knowledge. The panel thinks that the crash courses serve as a good refresher, but it could be useful to refer students to additional online courses if needed. The panel thinks it would be good if the programme could organise an additional crash course regarding quantitative research methods. From before the start of the programme, C-MAT helps students to find accommodation in Antwerp, to arrange the necessary insurances, etc. During the academic year the programme works together with Randstad, an employment agency in Belgium, preparing students for the job market in Belgium by organising different workshops (e.g., CV writing). The programme also organises information sessions to guide students towards a PhD.

In general, the panel wants to point out that the inclusion of C-MAT in the Faculty of Business and Economics has a good impact on the **quality of the programme**. C-MAT follows all quality processes and procedures of the faculty. Student feedback is taken seriously and is used in the context of continuous quality improvement.

To conclude the panel states that the programme provides a coherent educational environment. All the recommendations of the previous assessment panel (2016) have been addressed. The curriculum, its ambitions and its content have been revised. This revision resulted in clear pathways which prepare students for careers in industry or for further study. The programme also improved the admission policy to attract the target audience (e.g., compliance to entry requirements, such as a thorough knowledge of English, the right diploma and/or working

experience). Students with a weaker knowledge of economics are encouraged to follow the preparatory crash courses in economics and financial economics. Therefore, the panel evaluates GQS 2 'Educational learning environment' as satisfactory.

GENERIC QUALITY STANDARD 3: OUTCOME LEVEL ACHIEVED

The assessment panel evaluates the outcome level achieved for the Advanced Master of Science in Maritime and Air Transport Management as satisfactory.

Assessment 2016

The panel stated that there weren't enough guarantees that all the competencies which the programme aimed for could be achieved at advanced master's level. The panel based this conclusion on the following important elements. First, the panel noticed that the examination questions of several courses were not in line with the expected academic level. A distinct number of examinations only tested basic knowledge and application at an introductory (bachelor's) level. Students and alumni also signalled that the content of the programme was too basic. Second, the panel had found that the master's dissertations were often very descriptive. The methodological and analytical quality of the dissertations was too limited. Third, the programme lacked a steering policy on testing and evaluation. It was largely left upon the individual professor to define the evaluation method. Except for student feedback, the quality of testing wasn't reviewed by peers or other experts. Consequently, the panel evaluated GQS 3 'Outcome level achieved' as unsatisfactory.

Reassessment 2019

The programme has undertaken several actions to improve the quality of the assessment, testing and evaluation of students. The panel describes the integration of C-MAT in the FBE as a quantum leap forward. To be more precise, the FBE **policy on assessment** steers the programme in the right direction. For example, assessment criteria are transparent and well communicated to the students (via the course information, on Blackboard, in class). Students can request feedback on their grades for each course. Depending on the course coordinator there is either a fixed feedback moment or the student has to make an individual appointment. To avoid possible validity and reliability issues, the academic coordinator of the programme monitors, guards and streamlines the assessment methods used in the different courses. Also, the evaluation of the master's dissertation has changed since the previous assessment. The process evaluation is now part of the final grade and the final product is assessed by the promoter and an academic assessor. A representative of the company (in case of a company collaboration) is also invited to the dissertation defence.

A large **variety of assessment methods** is used across the different courses (e.g., written and oral examinations, closed or open book, written assignments with or without oral presentation, case studies, tests...). The panel observes that the use of continuous assessment methods engages students to work throughout the semester. However, during the interview with the panel, the students argued that in some courses there is too much emphasis on the final exam in comparison with the assignments, which are sometimes very demanding. Hence, the panel remarks that the respective weights of the different assessment methods should be reconsidered in the final grading: what is the split between examination and assignment for each course and is there a good balance in terms of workload?

The **master's dissertations** have a different set-up, depending on the chosen track. For the management track students, the dissertation is developed out of a concrete problem of a company or organisation. Students receive a subject list at the beginning of the first semester

but are free to contact a company themselves in consultation with the dissertation coordinator. Students are asked to regularly consult their promoter and their company's contact person. Management students write their dissertation in groups (two to three persons) and get different grades depending on their individual contribution. According to the panel the process leading to this different grade is transparent. Students say that they are aware that their final grade can be different. For the research track students, the dissertation is built up around a research question or problem. The expected outcome is an academic paper. Research students write their dissertation alone. The panel applauds the improved master dissertation process, which is identical for each track. Hereby the panel refers to the submission of official progress reports, the progress presentation, the given feedback, the grading process and the use of the FBE evaluation form. The panel believes that the improved processes resulted in a good quality output. As mentioned under GQS 2, the timing of dissertations should be revised by the programme. According to the programme management, finishing the dissertation is a common reason why students are delayed by a year.

The panel analysed multiple examination questions, assignments and 13 master's dissertations and holds the opinion that the programme assesses the students on an **advanced master level**. There is good consideration of knowledge competences and understanding of the main issues in each track.

Based on the alumni statistics provided by the programme, the **employability** rate is high. Thirty-two out of 35 alumni that graduated between 2016 and 2018 and that filled in the questionnaire are employed. Only 3 of them were still unemployed. Thirteen percent of the alumni work in the maritime transport sector, 7% in the air transport sector and 39% works in general logistics. The panel recommends the programme to refine the methodology used to find out what is behind 'general logistics': are these jobs somehow linked to either maritime transport or air transport? The programme also seems a good preparation for a **PhD programme**, as evidenced by the numbers going on to doctoral programmes (13%). Based on the interview with alumni and professionals, the panel confirms that the level achieved by graduates is highly valued in the transport sector.

C-MAT supports students when they enter the job market or want to apply for a PhD. The given support is very much appreciated by students. It is noted that many international students find it difficult to find suitable employment in Antwerp due to the Dutch language requirement. Nevertheless, 50% of all C-MAT students stay in Belgium after finishing their studies. The other half returns to their home country or finds work in another (mostly European) country.

As a last remark, the panel wants to stimulate the programme to establish an official, faculty supported alumni organisation to keep a close contact with the alumni. For now, they only stay in touch through LinkedIn.

To conclude the panel states that the programme responded to the recommendations of the previous assessment panel (2016). C-MAT is fully integrated in the FBE and follows all the FBE policies, including the assessment procedures. This change had a positive impact on the transparency, reliability and validity of the assessment. Also, the level of examination questions and required answers are in line with what could be expected of an advanced master level and the quality of the master's dissertations has been improved, both methodologically and analytically. Therefore, the panel evaluates GQS 3 'Outcome level achieved' as satisfactory.

FINAL JUDGEMENT OF THE ASSESSMENT PANEL*

Generic Quality Standard 1 – Targeted outcome level (2016)	S
Generic Quality Standard 2 – Learning environment (2019)	S
Generic Quality Standard 3 – Outcome level achieved (2019)	S
Final opinion (2019)	S

As generic quality standards 2 and 3 are evaluated as satisfactory in the reassessment and given the positive judgement of generic quality standard 1 after the previous assessment (2016) the final judgement of the assessment panel on the Advanced Master of Science in Maritime and Air Transport Management is satisfactory.

* The generic quality standards are assessed according to a two-point scale: satisfactory or unsatisfactory.

APPENDICES

APPENDIX 1

Curriculum vitae of the members of the assessment panel

Prof. dr. Bart Jourquin holds a PhD in applied economics and is a full professor at the Catholic University of Louvain (UCLouvain). As researcher and professor, he held various academic positions, including Director of the Louvain School of Management in Mons, Rector of the Catholic University of Mons (FUCaM), and Vice-Rector of the Catholic University of Louvain (UCLouvain). He participated in the EQUIS accreditation process of the Louvain School of Management. He teaches, among other courses, transport economics and transport modelling. He was the former director of the “*Group Transport and Mobility (GTM)*”, a research lab at FUCaM, and is now a member of the *Center for Operations Research and Econometrics (CORE)* at UCLouvain. His main research interests are multimodal freight transport networks modelling, cost-benefit and socio-economic analyses of transport infrastructure projects and demand elasticity calculations. He’s a past or current member of various boards of directors (NMBS, ABX Logistics, SOFICO, Logistics in Wallonia...). He also actively participated in several research projects and/or consultancy in the transport sector in Europe.

Prof. dr. Heather McLaughlin is Dean of the Faculty of Business and Law at Coventry University, and Full Professor of management and international transport. Previous roles have included Director of Christ Church Business School, Director of the Centre for International Transport Management at the Global Policy Institute, and a professional career as a Chartered Accountant. Her research expertise is in maritime transport, and she has served as a specialist advisor to the House of Commons Select Committee for Transport. She was also editor of the leading maritime journal ‘Maritime Policy and Management’ for more than 10 years. As Past Master of the Worshipful Company of World Traders livery, she remains well connected in the business community and City of London. She has published widely in the field of maritime economics and in management education.

Prof. dr. Gianmaria Martini is Full Professor of Applied Economics at the Università degli Studi of Bergamo in Italy. His research activity focuses on parametric and non-parametric methods to estimate technical and economic efficiency, with many applications to the air transportation sector (airport efficiency). He has published several papers in international journals and presented his research results in many international conferences. Traditional efficiency analysis has been extended to environmental issues, presenting results regarding the determinants of pollution and noise in the aviation sector. Recent research activities have extended to regional development and aviation, with a specific focus on African countries. His contributions are both methodological and empirical, with policy implications that may be

included in the aviation regulation settings. He is currently Associate Editor of the Journal of Air Transport Management, and has been the Chairman of the Organising Committee of the 2013 ATRS Conference in Bergamo. He has been nominated Vice President for Publications of the Air Transport Research Society. He is also the Coordinator of the PhD program in Applied Economics and Management, run by the Universities of Bergamo and Pavia.

Georgios Giannaros is a part-time student in the MSc Shipping Management at Alba Graduate Business School in Athens. His Bachelor Degree was in Economic and Regional Development (Panteion University of Social and Political Sciences). For the last 3 years, he works in the HSQE Department of Maran Gas Maritime, a member of Angelicoussis Shipping Group.

APPENDIX 2

Time schedule of the site visit

February 28, 2019

14:00–16:00	intern consultation and examination of the documents
16:00–17:00	programme management
17:00–17:15	internal consultation
17:15–18:15	alumni and professional field
18:15–18:30	internal consultation
19:00	dinner (panel)

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08:30–09:00	internal consultation
09:00–10:00	students
10:00–10:15	internal consultation
10:15–11:15	teaching staff
11:15–12:00	consultation hour
12:00–12:30	programme management
12:30–14:30	lunch and internal consultation
14:30	oral reporting

