Accreditation Report

Master of Science in Maritime Transport (Master's degree) & Maritime Transport Technology (Doctoral degree)

University: Arab Academy for Science, Technology and Maritime Transport

Reference Number: IP-0699-1

18th Meeting of the ZEvA Commission for International Affairs on 21st March 2023

Item 04.04

Study Programme	Degree	Programme Duration	Type of Programme	Maximum annual intake
Master of Science in Maritime Transport	Master	Two–Three years	Full-time	100
Maritime Transport Technology	Doctoral	Three years	Full-time	40

Accreditation contract signed on: 06th March 2022

Date of site visit: 14th October 2022

Contact Person at the higher education institution: Dr. Capt. Mohi-Eldin M. Elsayeh

ZEvA programme officer: Malte Huylmans

Expert Panel:

Prof. Dr. Bettar Ould el Moctar – Professor for Ship Technology and Ocean Engineering, University of Duisburg-Essen (scientific representation)

Prof. Dr. Ilknur Colmorn – Professor for Maritime Navigation and Digitalization, City University of Applied Sciences Bremen (scientific representation)

Prof. Bastian Gruschka – Professor for Maritime Technology, City University of Applied Sciences Bremen (scientific representation)

Dr. Michaela Mayer – CEO INASEA (professional practice representation)

Rebecca Lauther – Doctoral student, Technical University Dortmund (student representation)

Hanover, 2023

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I. Final Vote of the Expert Panel and Decision of the Accreditation Commission

1. Decision of the ZEvA Accreditation Commission (date)

The ZEvA Commission follows the experts' report and recommendations and takes note of the university's response.

The ZEvA Commission decides to accredit the following degree programmes offered by the Arab Academy for Science, Technology & Maritime Transport for a period of six years:

- Master of Science in Maritime Transport (Master)
- Maritime Transport Technology (Doctoral programme)

The accreditation is awarded under the following pre-conditions:

1. Transparent and binding examination regulations should be formulated for both study programmes and made available to students.
2. The module handbooks require a substantial revision. The information should include the examination conditions (at least possible forms of examination), the requirements for access, the intended learning outcomes and the responsible lecturers.
3. The existing inconsistencies between the credit system and corresponding time hours must be resolved in a comprehensible way.

The accreditation is awarded under the following conditions:

1. The internal regulations for the recognition of credits need to be in full accordance with the principles of the Lisbon Convention. In particular, the regulations should stipulate that the Academy shall bear the burden of proof in case recognition is denied.
2. The questionnaire for the assessment of teaching quality should include questions for the monitoring of student workload.

The pre-conditions have to be fulfilled prior to granting the accreditation. The conditions have to be fulfilled within 12 months upon awarding of the accreditation. In case a condition is not fulfilled within this period, the accreditation of the programmes will be withdrawn.

This decision is based on the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), the Framework of Qualifications of the European Higher Education Area and the recommendations of the ECTS Users' Guide as referred to in the ZEvA Manual for the External Assessment of Study Programmes.

2. Final Vote of the Expert Panel

2.1.1 Recommendation to the ZEvA Commission:

The expert group recommends the accreditation of the following study programmes

- Master of Science in Maritime Transport (Master's degree)
- Maritime Transport Technology (Doctoral degree)

as offered by the Arab Academy for Science, Technology and Maritime Transport for the duration of six years under the following pre-conditions:

General Pre-Conditions:

- Transparent and binding examination regulations should be formulated for both study programmes and made available to students.
- The module handbooks require a substantial revision. The information should include the examination conditions (at least possible forms of examination), the requirements for access, the intended learning outcomes and the responsible lecturers.
- The existing inconsistencies between the credit system and corresponding time hours must be resolved in a comprehensible way.

General Conditions:

- The internal regulations for the recognition of credits need to be in full accordance with the principles of the Lisbon Convention. In particular, the regulations should stipulate that the Academy shall bear the burden of proof in case recognition is denied. Furthermore, a diploma supplement should be issued to all graduates.
- The Academy should monitor the students' workload as part of the students' survey.

To support the university and the programmes in their further development and enhancement, the experts give the following general recommendations:

General Recommendations:

- The experts recommend that the Master's and doctoral programmes should also increasingly be involved in cooperation to increase student mobility and thus strengthen it in said programmes.
- The experts recommend that the HEI invest more in student licences for software programmes, such as Matlab.
- The experts recommend that the quality manual used by a neighbouring college be declared in such a way that it is clear to students that it is also used in this form at the MPI.

II. Evaluation Report of the Expert Panel

1. Introduction: Purpose, Design and Context of the Accreditation Procedure

It is the purpose of the accreditation procedure to assess the quality of the study programmes **Master of Science in Maritime Transport (Master's degree)** and **Maritime Transport Technology (Doctoral degree)** run by the **Maritime Postgraduate Studies Institute (MPI)** at the **Arab Academy for Science, Technology and Maritime Transport** at **Alexandria (Egypt)** against international standards. The assessment is based on the framework laid out in the ZEvA Manual for the External Assessment of Study Programmes. This assessment framework is fundamentally based on the "European Standards and Guidelines for Quality Assurance in Higher Education (ESG)" (ENQA 2015), the "Framework for Qualifications for the European Higher Education Area" (2005) and the "ECTS Users' Guide" (European Com-munities, 2015). In line with the ESG, the assessment was organized as a peer review procedure, involving an expert panel composed of two university professors in the discipline, one professional from outside academia and one student.

For assessing the study programmes, the Maritime Postgraduate Studies Institute was asked to submit a self-report in English containing a detailed description of the Academy, the College and the study programmes. Along with the self-report, several additional documents were submitted, including detailed course syllabi, CVs of teaching faculty, comprehensive statistical data as well as relevant rules and regulations. All documents were submitted in English translation. By special request, the expert panel also received additional documents such as a list of topics for master thesis' and projects.

Due to the travel restrictions imposed by the COVID-19 pandemic, ZEvA and the Arab Academy for Science, Technology and Maritime Transport jointly decided to conduct a virtual site visit in October 2022. The expert panel conducted separate interviews with the leadership board of the College of Fisheries and Aquaculture Technology, the Academy's president, the head of the quality assurance and accreditation centre, the head of the respective quality assurance unit at the college, academic supervisors and programme coordinators, teaching faculty, students and graduates. Moreover, the experts had the opportunity to have an extensive talk with the head of the Academy's library and campus facility management.

This report is based on the experts' assessment of the university's self-report and on their impressions gained during the digital site visit. It will serve as a basis for the ZEvA Accreditation Commission to decide on the accreditation of the two study programmes. In the case of a positive decision by the Commission, ZEvA will award its quality seal for a limited period, after which the university can apply for re-accreditation of the programmes.

The experts would like to thank all involved members of the Maritime Postgraduate Studies Institute and staff for the professional organization of the online site visit and for the open and constructive atmosphere during the talks.

2. Governance, Management and Profile of the University

Organizational Structure and Mission of the University

The Arab Academy for Science, Technology and Maritime Transport (AASTMT) was founded in 1972 with the prime mission of providing education in the field of Maritime Studies and Maritime Transport to students from Egypt and other parts of the Arab world. As an organization of the Arab League, the Academy has a special status among the higher education institutions of Egypt and, according to the Academy's president, functions as a thinktank for the Arab nations. It is a non-profit and non-governmental organisation, which is mainly funded by tuition fees, supplemented by contributions from the Arab League and some maritime organizations.

Since its foundation, the Academy has been continuously expanded and re-structured. Apart from the main campus in Abu Qir, AASTMT holds several other campuses in Egypt, one branch in Latakia (Syria) and another branch in Sharjah (UAE)[1]. Currently, the Academy comprises 14 colleges and offers bachelor's and master's programmes in a large variety of disciplines, ranging from Electrical and Mechanical Engineering to Architectural Engineering, Business and Management, Transport and Logistics or Computer Science[2]. The Academy also awards doctoral degrees and engages in various research activities. According to its president, roughly 22.000 students are currently enrolled at AASTMT.

At the central level, the Academy is headed by a board consisting of the 22 ministers of transport of the respective Arab nations. This board is responsible for approving a five-year strategy plan and for discussing all financial issues. Out of these, nine members are annually elected to form the executive board. Besides the board, AASTMT possesses a separate governing body for financial issues in the shape of a committee which is also formed by the member states of the League of Arab states.

Additionally, the Academy is headed by a president and several vice-presidents as the prime decision-making authority, while each college is in turn governed by board consisting of a dean and several vice-deans. At least one member of each college board is responsible for student affairs. In addition, each college possesses a so-called industry consultancy board, whose members are representatives of the non-academic employment market. All colleges consist of several departments, each of which is specialized on a particular subject discipline.

On its website[3], the Academy summarizes its vision and mission as follows:

AASTMT Vision:

"The Academy must be a smart educational institution with a positive impact on the knowledge society through research, creativity, innovation, and entrepreneurship.".

[1] AASTMT website: Last accessed: January 2023.
[2] AASTMT website: last accessed: January 2023.
[3] Last accessed: January 2023.

AASTMT Mission:

"Achieving sustainable development in society through providing outstanding graduates capable of bringing about change and who are prepared through educational and training programs with international standards, and intellectual capital represented in centres of excellence and efficiency in scientific research, training, and consultations, through the application of the highest quality standards and governance".

The Maritime Postgraduate Studies Department (as named at that time) was established under the umbrella of the College of Maritime Transport and Technology in January 1994. During the last three decades and due to vast development in maritime and shipping fields, there has been a significant need for specialized entity providing maritime postgraduate studies in broader prospects.

In 2014, AASTMT decided to keep pace with industry trends and needs through establishing a new independent Maritime Postgraduate Studies Institute (MPI) instead of the dependent Maritime Postgraduate department to give wider range of flexibility and increase the prospects and outcomes of Maritime Postgraduate studies in the Academy. The main target of the Institute is to assist the Arab and African countries to satisfy their needs of highly qualified national individuals who can follow up and take part in the maritime industry development.

The Maritime Postgraduate Studies Department (as named at that time) has accepted the enrolment of the first Masters class in February 1995, where the first graduate student was awarded Maters degree in 1997. The College has also accepted a number of Doctorate Degree students since 1997. The first Doctorate Degree thesis was submitted in December 2000. In the period between 1997 and 2022, 476 students have been awarded their Master's Degree, and 114 students have been awarded their Doctorate Degree in Maritime Transport Technology in different disciplines of the maritime industry and its related sciences (self-report, Introduction, p. 22 f.).

As was explained during the online talks, the study programmes are entirely funded by means of tuition fees.

Experts' Appraisal

The expert panel comes to the conclusion that AASTMT has clear institutional profile. Its mission is clearly stated and transparently published on the website. It becomes clear that the maritime programmes take up a special role within the Academy, as they were the institution's founding nucleus and are therefore still of great importance for the Academy.

AASTMT's unique profile as an institution shaped by all member states of the Arab League on the one hand and as an internationally oriented higher education institution on the other hand greatly contributes to the exchange between the various Arab nations and the rest of the international community. As the names of the companies and representatives involved were only provided in Arabic, the experts were unable to ascertain the composition of the Industry Consultancy Board.

Student Mobility and Internationalisation

AASTMT has signed several national and international cooperation agreements with the intention of strengthening (inter-)national student mobility (cf. self-report, p. 12 ff). According to the interviews held during the online site visit, AASTMT serves the purpose of all 22 member states of the Arab league and therefore strives to especially enhance student mobility between those states. Enhancing internalization is therefore regarded as a central pillar of AASTMT's strategic planning.

In reality, this manifests in students from different countries – especially Arab countries in Africa – partaking in the respective programmes. When asked for the variety of home countries of their current fellow students, students and alumni mentioned home countries such as Syria, Libya and Greece as examples during the interviews.

AASTMT has a policy regarding educational regulations, which is available on its website[4]. Articles (4) and (13) clearly stipulate that a main factor for the recognition of credits earned abroad is equivalence in terms of course content.

The expert panel also asked for a sample diploma supplement, which was not provided because no such document is issued yet.

Experts' Appraisal

The experts have gained the impression that the Academy is generally striving to promote student mobility – especially among the member states of the Arab League. Additionally, it should be noted that the existing programmes can rely on a good and large (inter-)regional network of local partners – such as the University of Alexandria and a broad variety of local companies – and have close connections to other countries within the Arab League. The experts recommend checking to what extent the existing cooperation in the undergraduate degree programmes can be used to strengthen student mobility in the postgraduate degree programmes as well.

Nevertheless, for a successful cooperation within the European Higher Education Area (EHEA) it seems vital that the HEI introduces a diploma supplement, which should be a binding part of all final transcripts of records. To enable mobility within the EHEA it is also essential to implement standards which are fully in line with the Lisbon convention: The recognition policy therefore needs to clearly stipulate that in case recognition of credits is denied, the Academy bears the burden of proof of non-equivalence. Also, recognition decisions should be based on equivalence in terms of acquired knowledge and competences, rather than equivalence in course content.

[4] Last accessed: January 2023.

Equal Opportunities

According to members of the university's leadership board a diversity policy is in place and referred to in the student handbook, which was not provided in this assessment, but was accessible for the experts due to an ongoing parallel assessment of the bachelor programmes. The respective policy has been subsequently added in a former accreditation procedure at the College of Fisheries and Aquaculture Technology and is valid throughout the entire academy (cf. diversity policy). The policy contains regulations regarding discriminating language (cf. 1. a. ibidem), special technical support (e. g. the use of text-converting, Braille, voice-conversions to text and zooming in windows […] special head-phones, cf. 2. c.–d. ibidem), the possibilities of alternative student assessment (cf. 2. e. & 4. ibidem), special counselling and representation within the HEI's governing bodies (cf. 2. f.–i. ibidem). Finally, it regulates matters of physical and non-physical accessibility (e. g. special financial support, 3. a.–f. ibidem, and the availability of Ramps in all AAST places to ease disability movement, 3. f. ibidem). Nevertheless, due to national regulations, which impose requirements for physical fitness as part of obtaining an officer's license, these regulations can only partly be considered in both programmes. One of the consequences of this is that studying with a physical disability is not possible in either study program.

Additionally, the HEI explained that Egyptian law forbids any discrimination due to religion and nationality.

The HEI elaborated that opening both degree programs to female students is a relatively new development, as the officer career was not previously open to women.

Experts' Appraisal

The expert panel appreciates the fact that a diversity policy is in place and contains regulations to support students with special needs.

Due to the fact that female students were previously denied access - also to the Bachelor's degree programmes – it is to be expected that the numbers of female students in the Master's degree and doctoral programme will also increase in the future. Unlike a few years ago, it is now possible for female students to enrol in said programmes. The experts acknowledge that progress has been made here, which is to be appreciated.

3. Assessment of the Study Programme/s

1.1 Common Features and Strategic Dimension of the Programmes

Both programmes form a further higher education degree qualifying for a profession. The master's programme is aimed at bachelor's graduates in nautical subjects, such as those offered at AASTMT. In both the master's programme and the doctoral programme, it is possible to study the course of study as a classic "by course" attendance programme or as a distance learning programme, which is enriched with attendance phases "by thesis". The latter is explicitly aimed at prospective students who serve on board ships.

According to information given during the digital site-visit, the U.S. credit hour (CH) system is used. It was referred to a conversion ratio of 2:1 (ECTS to Credit Hours), as it is also used in the related bachelor's programmes. Nevertheless, an appendix of the self-report refers to a 3:1 conversion ratio, as it is stated that 120 ECTS-points translate to 40 Credit Hours (cf. Appendix 2a, p. 4).

The total Credit Hours of the master's programme is 42 Credit Hours (cf. self-report, p. 24) and that of the doctoral programme amounts to 69 Credit Hours (ibidem, p. 25).

1.2 Intended Learning Outcomes

1.2.1 Master's programme: Master of Science in Maritime Transport

The intended learning outcomes of the master's programme are described by the university to be as stated below:

PLO 1: Advanced Knowledge: Graduates are able to develop and incorporate in-depth relevant knowledge in professional practices for the benefits of both national and international communities. Graduates are able to apply their advanced knowledge and skills in different areas including marine human resources management, fleet operation and quality and safety management. In addition, they will acquire diverse knowledge and capabilities in different professions in the maritime industry. Moreover, they will gain sufficient advanced knowledge and skills in data analysis processing and research methodology.

PLO 2: Research: Graduates are developing, conducting, and managing independent and original research in maritime, shipping and other marine fields.

PLO 3: Critical Thinking: Graduates are scientifically competent in solving problems logically, analytically and creatively also evaluating based on sound facts and ideas.

PLO 4: Communication: Graduates are able to develop a wide range of relevant knowledge through effective channels.

PLO 5: Professional Ethics and Integrity: Graduates are able to develop and balance professional and ethical responsibilities including contemporary issues community service and environmental awareness.

PLO 6: Life-long learning: Graduates are able to adopt the latest relevant knowledge and cutting-edge technologies through developing and gathering knowledge and experience, and they can also continue in the same stream for Doctorate Degree for life-long learning process.

PLO 7: Management and Entrepreneurship: Graduates are able to evaluate and develop the managerial concepts and identify business opportunities and initiate action to achieve it.

PLO 8: Scientific research: Develop the Academic Research writing technique and Implement Research Methodology application (cf. self-report, pp. 59 f.).

The described intended learning outcomes slightly vary depending on the chosen track, but mostly on regarding the its wording (cf. follow-up submission, Appendix 7–10).

1.2.2 Doctoral programme: Maritime Transport Technology

The intended learning outcomes of the doctoral programme are described by the university to be as stated below:

Student successfully completing this program will be able to:

PLO 1: Advanced Knowledge: Graduates are able to create and incorporate in-depth relevant knowledge in professional practices for the benefits of both national and international communities. Graduates are able to apply their advanced knowledge and skills in different areas including marine human resources management, fleet operation and quality and safety management. Students in addition will acquire diverse knowledge and capabilities in the field of maritime safety administration, ship's surveying and port operations management. However, student will gain sufficient advanced knowledge and skills in data analysis processing and research methodology.

PLO 2: Research: Design, conduct and manage independent and original research in maritime shipping and marine safety for the sake of both national and international communities.

PLO 3: Critical Thinking: Graduates are scientifically competent in solving problems logically, analytically and creatively based on sound facts and ideas.

PLO 4: Communication: Graduates are able to create and apply a wide range of relevant knowledge through effective channels.

PLO 5: Professional Ethics and Integrity: Graduates are able to develop and balance professional and ethical responsibilities including contemporary issues community service and environmental awareness.

PLO 6: Life-long learning: Life-long learning: Graduates are able to adopt the latest relevant knowledge and cutting-edge technologies through developing and gathering knowledge and experience, and they can also continue in the same stream for Doctorate Degree for life-long learning process.

PLO 7: Management and Entrepreneurship: Graduates are able to evaluate, develop and explain the managerial concepts and identify business opportunities and initiate action to achieve it.

PLO 8: Scientific research: Develop the Academic Research writing technique Implement Research Methodology application (cf. self-report, pp. 75 f.).

Experts' Appraisal (both study programmes)

The intended learning outcomes of both study programmes are presented consistently through the various formats, such as the module handbooks and the website, and do not contradict each other. They consist of different levels of competencies and skill sets and include dimensions such as acquiring knowledge, getting a basic insight into the scientific methods of the discipline, relevant soft skills, successfully communicating in intercultural and international work environments, and developing a professional self-conception.

1.3 Concept and Structure of the Study Programmes

1.3.1 Master's programme: Master of Science in Maritime Transport

The programme consists of a total of six core and four elective courses, which add to an amount of 30 Credit Hours spread over a minimum of three semesters. In addition, students have to register twelve Credit Hours as a research dissertation.

Semester	Number of courses	Core/Elective	Credit Hours	Total Credit Hours
First Semester	4 courses	Core	3/ Each	12
Second Semester	3 courses	Core	3/ Each	9
Third Semester	3 courses	Electives	3/ Each	9
Fourth Semester	Research Dissertation	Core	12 Credit Hours	12
Total Credit Hours				42

For those students, studying the programme "by thesis" rather than "by course", only two core courses ought to be taken in presence during the first semester. Instead of the other courses, students have to submit additional theses.

Semester	Number of courses	Core/Elective	Credit Hours	Total Credit Hours
First Semester	2 courses	Core	3/ Each	6
Second Semester	Thesis One	Core	6 Cr. Hours	12
Third Semester	Thesis Two	Core	6 Cr. Hours	7
Fourth Semester	Thesis Three	Core	6 Cr. Hours	7
Fifth Semester	Thesis Four	Core	6 Cr. Hours	7
Sixth Semester	Thesis Six	Core	6 Cr. Hours	3
Total Credit Hours				42 Cr. Hours

The programme offers various majors: Hydrographic Surveying, Ship Operation and Marine Safety, Marine Engineering Surveying, Advanced Navigation, Ship and Port Operation Management, Maritime Safety Operation Management, Ship Survey, Marine Environment Conservation and Energy Efficiency Management, Maritime International Transport and Logistics Management, Maritime Port Operation Management (cf. self-report, p. 24).

The course programme depends on the chosen major and consists of the following core courses and electives:

Ship and Port Operation Management:

1. Core Courses		
Code	**Title**	**Credit Hrs.**
MPI 729	Port Operation Management	3
MPI 787	Economics of Port Operation	3
MPI 759	Maritime Legal and Regulatory Framework	3
MPI 761	Port Facilities Utilization	3
MPI 762	Cargo Handling Operation Management	3
MPI 735	Management of Pollution Crises and Contingency Plans	3
MPI 738	Data Analysis and Processing	3
MPI 728	Research Methodology	3

2. Elective Courses		
Code	**Title**	**Credit Hrs.**
MPI 758	Marine Human Resources Management	3
MPI 734	Monitoring Environment Pollution	3
MPI 766	Vocational Health and Safety Management	3
MPI 763	Security Applications and Risk Management	3
MPI 755	Marine Accident Investigation	3

3. Master Dissertation		
Code	**Title**	**Credit Hrs.**
MPI 902R	Master Thesis	12

Hydrographic Surveying:

1. Core Courses		
Code	**Title**	**Credit Hours**
MPI 711	Geodetic Surveying	3
MPI 712	Plane Surveying	3
MPI 713	Marine Geophysics	3
MPI 714	Depth Surveying	3
MPI 715	Comprehensive Planning & Operation	3
MPI 716	Surveying Instruments	3
MPI 728	Research Methodology	3
MPI 738	Data Analysis & Processing	3

2. Elective Courses		
Code	**Title**	**Credit Hours**
MPI 753	Nautical Charts	3
MPI 772	Environment Risk Assessment and Management	3
MPI 756	Physical Oceanography	3
MPI 752	Satellite Geodesy	3
MPI 751	Remote Sensing	3

3. Master's Thesis		
Code	**Title**	**Credit Hours**
MPI 902R	Master's Thesis	12

Ship Operation & Marine Safety:

1. Core Courses		
Code	**Title**	**Credit Hours**
MPI 758	Marine Human Resources Management	3
MPI 757	Quality and Safety Management Systems	3
MPI 724	Ship's Surveying	3
MPI727	Marine Insurance	3
MPI 759	Maritime Legal and Regulatory Framework	3
MPI 760	Maritime Safety Administration	3
MPI 728	Research Methodology	3
MPI 738	Data Analysis & Processing	3

2. Elective Courses		
Code	**Title**	**Credit Hours**
MPI 735	Management of Marine Pollution Crises and contingency plans	3
MPI 755	Marine Accident Investigation	3
MPI 736	Environmental Risk Assessment and Management	3
MPI 721	Fleet Operation	3
MPI 729	Port Operations Management	3

3. Master Thesis		
Code	**Title**	**Credit Hours**
MPI 902 R	Master Thesis	12

Maritime International Transport and Logistics Management:

1. Core Courses		
Code	**Title**	**Credit Hours**
MPI 777	Multimodal Transportation Planning	3
MPI 778	Concept of the International Freight Forwarding	3
MPI 779	Logistics Legal Framework and policy	3
MPI 780	Supply Chain and Logistics Management	3
MPI 781	Strategic Planning in Logistics	3
MPI 783	Sustainable Logistics	3
MPI 738	Data Analysis and Processing	3
MPI 728	Research Methodology	3

2. Elective Courses		
Code	**Title**	**Credit Hours**
MPI 761	Port Facilities Utilization	3
MPI 729	Port Operation Management	3
MPI 786	Smart Port Operation and Management	3
MPI 784	Logistic Marketing Strategy	3
MPI 762	Cargo Handling Operation Management	3
MPI 782	Ship-brokering and Chartering	3

3. Master Thesis		
Code	**Title**	**Credit Hours**
MPI 902R	Master Thesis	12

Maritime Port Operation Management:

1. Core Courses		
Code	**Title**	**Credit Hours**
MPI 761	Port Facilities Utilization	3
MPI 785	Sustainable Supply Chain Management for Ports	3
MPI 786	Smart Port Operation and Management	3
MPI 787	Economics of Port Operations	3
MPI 729	Port Operation Management	3
MPI 762	Cargo Handling Operation Management	3
MPI 738	Data Analysis and Processing	3
MPI 728	Research Methodology	3

2. Elective Courses		
Code	**Title**	**Credit Hours**
MPI 766	Vocational Health and Safety Management	3
MPI 735	Management of Pollution Crises and Contingency Plans	3
MPI 772	Environmental Risk Assessment and Management	3
MPI 773	Energy Efficiency Management in Maritime Industry	3
MPI 784	Logistic Marketing Strategy	3
MPI 758	Security Applications and Risk Management	3

3. Master Thesis		
Code	**Title**	**Credit Hours**
MPI 902R	Master Thesis	12

1.3.2 Doctoral programme: Maritime Transport Technology

The doctoral programme consists of a total of 69 Credit Hours spread over a minimum of six semesters. *The first* […] *semester includes three obligatory courses of a total of* [nine] *Credit Hours. The second semester includes three obligatory courses with* [three] *Credit Hours each and* [three] *credit hours* [for

a] *research proposal.* [Twelve] *Credit hours should be registered in each of the following* [four] *semesters as thesis completion. At the end of the second semester, the candidate shall submit a detailed proposal of his/her research program to the Institute for evaluation. This is done by a specialized committee and involves oral presentation of the proposal by student and discussion with the committee members, the final result would be acceptance, conditional acceptance or rejection. Student shall submit a final copy of his/her Doctorate to board of assessment for approval and acceptance at the end of an academic semester not before the sixth semester* (cf. self-report, 25). Students can specialize within certain academic fields: Maritime Sciences and Maritime Education and Training (MET), Maritime Safety, Security and Protection of Marine Environment, Fleet Operations and Maritime Ports Management, Marine Engineering Technology and Ship Construction, Management of International Maritime Economy, Transport and Logistics, Hydrographic Surveying & Safety of Navigation (ibidem).

Semester	Course/Research Code	Credit Hours	method of evaluation
First Semester (Elementary I)	(3) Elementary courses	9	Assessment
Second Semester (Elementary II)	(3) Elementary courses +	9	Assessment
	Proposal Seminar (MPI 807)	3	Assessment+ Presentation
Third Semester	Dissertation (1) (MPI 808)	12	Evaluation Report
Fourth Semester	Dissertation (2) (MPI 809)	12	Evaluation Report
Fifth Semester	Dissertation (3) (MPI 810)	12	Evaluation Report
Sixth Semester	Dissertation (4) (MPI 811)	12	Evaluation Report
Total		69	
Complementation Semester/s (7, 8, 9, 10, 11, 12 if any) - (MPI 812)		3	Complementation report

In the doctoral programme, courses are only taken in the first two semesters. The remaining period of study is used to complete the actual dissertation.

First Semester Courses

No.	Code	Title	Cr. Hrs.
1	MPI 801	Research methodology and applications	3
2	MPI 802	Statistical Data Analysis	3
3	MPI 803	Research Data Management	3

Second Semester Courses

No.	Code	Title	Cr. Hrs.
1	MPI 804	Maritime Law and Policy	3
2	MPI 805	Maritime Economy	3
3	MPI 806	Maritime Technology Innovation	3
4	MPI 807	Proposal Seminar	3

Experts' Appraisal (both study programmes)

The design of both curricula is convincing and generally enables students to achieve the intended learning outcomes. The respective module structures are compelling, and the modules relate to each other in a meaningful way.

Both programmes include an elective course section or an extensive thesis, which enables students to set individual specialisations to a certain extent and to actively participate in shaping their own course of study.

The module handbooks provided give a good overview of the study programmes, but the descriptions could benefit from being more detailed and less generic in some places (cf. the corresponding chapter on transparency). Finally, it must be noted that the self-report contains contradictory statements regarding the conversion of the credit system used. The experts consider it absolutely necessary to resolve these inconsistencies – especially in order to allow students to transparently understand the allocation of the workload.

1.4 Teaching Faculty

The HEI described the policy for staff recruitment in length in its self-report, the staff handbook and during the site-visit (cf. self-report, p. 51 ff.; Appendix 6). There The criteria state that for teaching undergraduate students at least a master's degree in the respective field or in an equivalent specialisation is necessary. For teaching graduate students in a master's programme, a Ph.D. is necessary. The Academy's requirements differentiate between the technological staff and the academic staff: so-called 1st lecturers (full professors) need to hold a Ph.D. or a master degree and to publish at least two research papers, additionally she or he needs to hold a STCW-Certificate of

Competency (CoC), 2nd lecturers (assistant professors) need to hold a master's degree, a STCW-CoC and work as a 3rd lecturer for at least four years, 3rd lecturers (lecturers) at least need to hold a bachelor's degree, a STCW-CoC and work as a captain or as a chief technical officer for three years minimum, 4th lecturer (assistant lecturers) act as a support to other lecturers.

The Academy also provided detailed CVs of all staff members (cf. Appendix 1). A short biography of the lecturers is also presented on the Academy's website.

The teaching staff elaborated that an assistant professor must teach five to six hours per week, with six usually being the maximum. The necessary teaching hours also depend on the respective additional responsibilities, such as supervision.

There is a staff developing centre, which is responsible for the didactic training of the lecturers. Taking classes there – as e. g. in scientific writing, improving communication skills or how to appropriately deal with students – is entirely voluntary. Nevertheless, it was mentioned during the talks that in order to be promoted within the college, staff members are obliged to at least participate in one such class.

Experts' Appraisal

The experts have gained the overall impression that there is sufficient and sufficiently qualified staff to teach in both programmes. In recent years the number of staff has increased, which is a positive trend. Also, a significant number of staff members involved hold a Ph.D. and a differentiation between teaching graduate students and undergraduate students is made.

Fair and merit-based regulations for recruitment and promotion seem to be in place and have been provided by the Academy.

The training measures for lecturers, especially as a precondition for promotions, seem very suitable to encourage participation in further didactic training. The experts find that this is an outstanding approach with role model potential for other institutions.

1.5 Infrastructure, Resources and Student Support

Infrastructure and Technical Equipment

The academy describes the College's physical facilities in detail in its self-report (cf. self-report, pp. 37 ff.). The MPI has access to an Integrated Simulators Complex, a number of new simulators at the neighbouring CMTT College as well as laboratories located there and the training ship Aida IV and a meterological measuring station. Furthermore, there is access to the shared workshops of the College of Engineering. According to staff members all simulators are regularly maintained and updated.

The interviewed students expressed their general satisfaction with the lab facilities. However, students stated that they often have to buy licences they need to write their theses, such as Matlab, themselves.

Library

The academy has, on the one hand, an on-campus library owned by the college and, on the other hand, a centralized library. During the digital site visit, the expert panel was given a presentation by the head of the AASTMT's library to gain an overview of the facilities. As was explained during the site-visit, there are different AASTMT libraries on campus – usually tied to the respective colleges with opening times from 08:00 am to 06:00 pm during the academic year. Each library usually comprises up to five computer labs where students can work. To get students familiarised with the library, there is an orientation session at every college at the beginning of each academic year.

By and large, students have access to roughly 85.000 publications in print and an estimated amount of ten times of that in digital formats. Publications in different languages are available, the vast majority of them in English. The ongoing pandemic initiated a strong push towards more digitization regarding AASTMT's library facilities.

Requests for acquiring additional books are exclusively handed in by lecturers. Nevertheless, the library management staff also acquires books whenever they are regularly requested by students and not yet in stock.

Additionally, the HEI has a full subscription to the British Library Document Supply System, which grants a full document delivery for all its publications. Furthermore, AASTMT gives students (including foreign students who study at AASTMT) access to the Egyptian Knowledge Bank, a digital library database which usually is only accessible by Egyptian citizens in Egypt.

Teaching and Learning Environment

Students and lecturers both described the learning environment and the atmosphere as encouraging and confirmed there was a generally constructive and open feedback culture.

Teaching staff members explained that the average course size was about 20 students per simulator class. In case of bigger cohorts the academy runs up to five parallel classes.

Student Support Services

The programme managers referred that each student is assigned a scientific advisor, who is responsible for counselling him or her during his or studies. An academic advisor is always a graduated teaching assistant of the respective college. Additionally, the Academy's president explained that there are special assistants, responsible for student affairs and, besides the scientific advisors, act as the first counterparts for the students.

AASTMT possesses a career development centre and an entrepreneurship centre, which according to the Academy's president, offer their services to students on a voluntary basis and are responsible for individual counselling.

Following the statements made in during the digital site visit there are possibilities for students gaining

scholarships – both smaller ones (e. g. for fee reduction) or for full scholarships covering the entirety of tuition fees.

On course level it was stated that students are provided with digital lecture notes and reading material via Moodle.

Experts' Appraisal

The expert panel was impressed by the technical infrastructure – especially the library's subscriptions and collections are exceptional and state-of-the-art. The laboratories and the simulator could not be inspected due to the ongoing pandemic situation. As the Academy provided further detailed insights on the infrastructure during the digital talks, the experts nevertheless had a good overall basis for a substantiated judgment.

The college does not have command over its own training vessel, but it upholds a co-operation with CMTT which grants respective access. The experts recommend that the HEI invest more in student licences for software programmes, such as Matlab.

The small course sizes allow for a close relationship between students and the teaching staff. The mentoring system makes individual counselling possible, which is to be appreciated.

1.6 Methods of Teaching and Student Assessment

Admission to the Programme(s)

In the Master's programme, the admission requirements are formulated as follows:

The program accepts graduates of the Faculties of Science, Engineering, Agriculture and Maritime Transport from one of the universities recognized by the Supreme Council of Universities if it meets the requirements for admission to the program (cf. Appendix 2a). Applicants also have to provide a transcript of records and proof of English language skills. In this regard, a TOEFL score of 500 points or a similar score on an equivalent test is recognised (cf. self-report, p. 25).

In the Doctoral programme, the admission requirements are listed as follows:

[a] *Certificate of postgraduate degree (Masters, MBA)* [–] *In case of students apart of the maritime field, they have to attend and pass an intensive three courses in areas related to the research field* (cf. Appendix 2b).

Student Assessment

A large variety of teaching methods is applied at master's level. In all programmes, teaching units combine lectures with practical simulator training or lab work, tutorials, exercises, or case studies.

In its self-report, the HEI outlines that there are three assessment periods during each academic semester: Firstly, there are midterm exams in the 7th week of each semester. Secondly, there are

exams in the 12th week and thirdly, there are the final exams (cf. self-report, p. 47 f.). All assessment events flow into the student's final course grades and are weighted with 30 %, 20 % and 40 %. The last 10 % of the grade depends on the student's performance during the class sessions and assignments, which are to be handed in during the semester (ibidem). Besides written exams, there are oral exams and assignments. However, written examinations make up the lion's share of the forms of examination used.

The teaching staff explained that if a student failed, he or she usually received counselling from his or her student advisor first. It was said that every student had the right to request a second grading if he or she felt unfairly treated. Students generally have the right to repeat failed exams as often as they wish to.

The students expressed their general satisfaction with the way the assessments were designed and with the attributed workload.

Teaching Methods

The applied teaching methods mainly consisted of standard lectures, simulator practicals, group projects and lab classes. According to the students, lectures are dynamic and interactive in their design. The teaching staff mentioned that they usually tried to generate a more dynamic classroom situation by using whiteboards, videos, and assignments, which are then also discussed in the classroom.

Additionally, the students mentioned that the Academy maintained various cooperation, which allow for field trips and guest lectures.

Experts' Appraisal

The Academy has proven that fair and merit procedures for student admission and assessment are in place. The student's assessment seems well-suited to allow for a continuous monitoring of students' progress during a course. It covers are variety of different ways of assessing students and is competency-based in general, even though there is a clear surplus of written examinations overall. The Academy has also shown that there are mechanisms in case students feel graded unfairly or need to repeat exams.

1.7 Quality Assurance

General Procedures and Underlying Regulations

The Academy's quality management system EDQMS (College Education Quality Management System) and its mechanisms are intensively described in the HEI's self-report and its quality manual (cf. self-report, Governance, Management and Quality Development, p. 40, Development & Review of Postgraduate Programs Procedure, p. 41 f. and Appendix 3).

On the College level, a quality assurance unit manages all quality aspects at the college in cooperation

with the quality committees at the Departments level and the College Crisis and Disaster Management Committee (self-report, p. 31).

As described during the digital site-visit and in the self-report, AASTMT's quality assurance system addresses different levels: There can be optional audits at college level, another level are international accreditation procedures, which are optional, but colleges are encouraged to engage in such by the Academy's board.

In addition to these optional procedures, all study programmes at AASTMT undergo an obligatory program review at least every three years. Students are obliged to partake in the evaluation process before they receive their grades.

Finally, there are two kinds of student surveys within each programme: Firstly, the students' satisfaction with their programmes is surveyed every semester. Secondly, every lecturer (including the external lecturers) is evaluated by the students each semester (Appendix 4a & 4b). Furthermore, according to lecturers there are also alumni surveys.

The Academy also monitors key indicators such as the number of students, drop-out-rates, transfer rates to other programmes and so on, which can be seen by the respective document provided (cf. Appendix 8). The experts recommend that more attention is paid to ensuring that the results of teaching evaluations are also reflected back to the cohorts being surveyed.

Responsibilities and Stakeholder Involvement

As mentioned in a previous chapter (cf. chapter 1) company representatives are part of the college's business consultant committee and as such are partaking in the design of curricula as stakeholders of the non-academic employment sector.

Students are obliged to fill out the regular course and lecturer surveys. According to the Academy's QM staff, the results of these are discussed with representatives of the student unions and within the college council, where also student representatives take part. The student unions and council both act as mediating bodies when it comes to matters concerning student's affairs. Due to the small cohorts, the two assessed programmes additionally allow for a more direct and informal feedback culture, which is explicitly praised by the students.

The head of the quality assurance unit explained that the results of both surveys are analysed at the unit of educational affairs and forwarded to the responsible dean of a college.

If a problem shows up the dean will have a talk with the respective lecturer and see if they can find a solution for it. It can also result in the dean closely following a course's progress during the next or the current semester in combination with having regular meetings with students from said course. Programme managers explained that in case of a rating underneath average, lecturers can be taken out of the teaching staff.

For complaints, following the statements during the site-visit, students have the possibility to either informally contact the respective course instructor or file a formal complaint directed to their academic

supervisor.

Applied Instruments and Methods

The surveys use quantitative methods to measure students' satisfaction with the respective programmes. A blank questionnaire, which shows that a question intended to measure the accredited workload is included, is not provided.

Quality Assurance of the Programme(s): Evaluation Results, Conclusions Drawn and Measures Taken in Response

A summary of evaluation results was provided (cf. Courses' Survey results & Lecturer Survey Results), but a short discussion of the results was given to the expert panel during the site-visit.

Experts' Appraisal

The Academy has shown that it highly engages in quality assurance and quality improvement at all levels. There are various institutional mechanisms in place to track the development and success of the study programmes.

The experts welcome that student unions are involved in the discussion of the respective feedback. Nevertheless, the experts strongly advise to discuss the results of course surveys directly with the students of each course and in this way include a larger number of students in the feedback loop.

Additionally, the experts recommend including a question concerning the adequacy of the attributed workload of each course into the course survey. In this way it would be possible to monitor potential problems in this realm systematically and regularly.

A cohort-tracking seems to be in place.

1.8 Transparency and Public Information

The AASTMT website contains extensive descriptions of the institution's profile in teaching and research, the organisational structure, and the history of the Academy. The website is offered both in Arabic and in English. The same applies to the separate websites of the College and the Institute, where more detailed information on the study programmes is to be found. The programmes' websites provide a brief overview of the module structure, key learning objectives, professional qualifications, and some of the content. Furthermore, teaching staff is introduced and possibilities to contact lecturers are provided. The grading system is also presented shortly. Links to relevant advisory services and regulations are also presented, as well as crucial documents, such as the student handbook. The HEI submitted a revised version of the module descriptions in the follow-up to the assessment. Currently, there are no study regulations or doctoral regulations for any of the degree programmes.

Experts' Appraisal

From the discussions during the review, it became clear that some of the information or advisory services under discussion are communicated to the students in other ways, e. g. via online platforms such as Moodle. The experts appreciate this as well as the English-language version of the website – especially in view of the increase in international students induced by the double degree options. Additionally, the module handbooks provided could be more detailed and more up to date in parts. The revised module handbooks represent a qualitative improvement in the view of the experts, but still contain blanks and passages that would require further revision. The experts therefore urgently recommend that the module handbooks be reviewed and updated. This applies in particular to literature references as well as the general consistency of the specified course content. The experts consider it extremely critical, especially in the case of the doctoral programme, that there are no examination or doctoral regulations. The regulations for the doctoral programme as well as the associated deadlines and requirements should be clearly and transparently laid out in such regulations.

1.9 Summary of the Findings and Appraisal

The expert panel has gained a very positive overall impression of the educational infrastructure AASTMT provides for students in the field of Maritime Studies. Students benefit from the excellent, state-of-the art technology on campus that shows only little need for optimisation. Especially the library and its subscriptions are at a very high level and can easily compete in an international context. This support system (e. g. the mentoring and advisory system) and the close and personal atmosphere contribute to optimal learning conditions for students. The Academy has developed an elaborate internal quality assurance system, both at central and decentral level. All internal and external stakeholders, including the students, are actively involved in the continuous improvement and development of the study programmes, even though this could be further improved by involving students more directly in the feedback loop and by monitoring students' workload. The experts still see potential for improvement regarding the implementation of some central aspects of the Bologna reform (issuance of a diploma supplement as a standard document, recognition of credits in line with the Lisbon convention), yet by and large, they see a high degree of compliance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). The regulations underlying both study programmes could also be formulated more clearly and bindingly.

Appendix

1. Statement of the University in Response to the Expert Report

The Maritime Postgraduate Studies Institute at the Arab Academy for Science, Technology & Maritime Transport expresses its sincere gratitude and appreciation for the ZEvA expert panel for the highly effective and efficient online visit for the accreditation and reaccreditation of the Master and Doctoral programmes offered by the Institute. It is acknowledged that the accreditation process was conducted with great professionalism and transparency. Also, we would like to thank the experts' panel for the gentle words in the feedback about the performance of the MPI staff within the report. Moreover, the valuable conditions and recommendations included in the report guide us to modify the course descriptions and our website as well.

I believe that the email sent to you on Jan. 25th, as a completion to the earlier modification to the initial self-report, was not recognized, as we already answered all these conditions in our previous email and we attached also the files according to your valuable conditions and recommendations to that email.

However, we would like to clarify again the corrective actions which we did in response to these conditions and recommendations.

General Pre-Conditions:

- Transparent and binding examination regulations should be formulated for both study programs and made available to students.

Corrective action

All examination regulations were included in the student guide and the attachments are included again in this email, and in the MPI website. These regulations are applied to all study programs. Examination regulations for both master and doctoral programs are available for students through the link: https://aast.edu/en/institutes/mpi/contenttemp.php?page_id=48100077

and MPI Students Guide through the link:

https://aast.edu/en/institutes/mpi/contenttemp.php?page_id=48100041

- The module handbooks require substantial revision. The information should include the examination conditions (at least possible forms of examination), the requirements for access, the intended learning outcomes, and the responsible lecturers

Corrective action

- All module handbook (course description) has already been reconstructed according to the previous ZEvA expertise recommendation, which was received at 25 January to fulfil the following:
- Examination condition: attaches (6,7,8,9, and 10)
- Forms of examination: they are already on the MPI website: https://aast.edu/en/institutes/mpi/contenttemp.php?page_id=48100077
- The course learning outcomes (CLO) are mapped with the program learning outcomes (PLO) (ibidem)

  - Doctorate Program Learning Outcomes (PLO): they are already on the MPI website: https://aast.edu/en/institutes/mpi/contenttemp.php?page_id=48100075

  - MSc Program Learning Outcomes: they are already on the MPI website: https://aast.edu/en/institutes/mpi/contenttemp.php?page_id=48100073

- Responsible lecturers: They are identified as a lecturer name in the course description as per attached (ibidem)
- Required access: for lecturer guide, lecturers will have access electronically or physically direct from the vice dean of education affairs

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- The existing inconsistencies between the credit system and corresponding time hours must be resolved in a comprehensible way.

Corrective action

To solve the inconsistencies between the credit system and corresponding time hours, the credit system and the corresponding time hours have been amended in Paragraph No. (1.6) page No. (38) in the MPI self-report to become as follows:

1.6 Basic Information on the National Higher Education System Academic Regulations

First of all, it is important to mention that the rough equivalent of 9 ECTS credits is 3 American credits (CH). Therefore, we propose to transfer credits, from ECTS to CH, along this 3:1 ratio. Students from universities with an American credit system should verify their school's credit-granting process. Transfer of credits is at the discretion of the home institution.

General Conditions:

- The internal regulations for the recognition of credits need to be in full accordance with the principles of the Lisbon Convention. In particular, the regulations should stipulate that the Academy shall bear the burden of proof in case recognition is denied. Furthermore, a diploma supplement should be issued to all graduates.

Corrective action

The attached modified course description for both programs are complied with Lisbon Convention. Furthermore, the accreditation of the academy and the marine sector with many European entities and universities are shown on the academy website which proves that the academy and the MPI as well are compiling with the Lisbon conventional at the link: https://aast.edu/en/centers/aicc/contenttemp.php?page_id=42400031

In fulfilment of the general condition, regarding the "diploma supplement" to be issued to all graduates, kindly find attached the relevant document, and it will be issued for all graduates from MPI for both Master and Doctoral degrees (Attach 21).

- The Academy should monitor the students' workload as part of the students' survey

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Corrective action

The student survey has been modified to monitor the students' workload :attaches (19)

General Recommendations:

- The experts recommend that the Master's and doctoral programmes should also increasingly be involved in cooperation to increase student mobility and thus strengthen it in said programmes.

Corrective action

MPI started the exchange program in 2019 with the climate change program as a part of the Erasmus Program. It was planned to extend the exchange program with other MSc programs and doctoral programs, but we could not continue due to the pandemic "COVICD 19", even though our target is to improve student mobility with the other programs in the near future.

- The experts recommend that the HEI invest more in student licences for software programmes, such as Matlab.

Corrective action

The Microsoft Campus 3 Order Confirmation Notice DG-AAST-2206-04 is attached (The agreement confirmation of the Microsoft license with Mohamed Abd El-Qader Academy representative) See Attach (13)

As for the (SPSS) software, the students use the free version. Usually, students used this softwarein the thesis, and within the data analysis course.

Free version available on the link SPSS free download: IBM SPSS Statistics Base: https://ibm-spss-statistics-base.en.uptodown.com/windows/download

- The experts recommend that the quality manual used by a neighbouring college be declared in such a way that it is clear to students that it is also used in this form at the MPI.

Corrective action

MPI already has its own quality manual See Attach (20)

- The expert panel recommends to create Industry consultancy boards to gather theindustry's feedback for a continuous improvement of the study programs

Corrective Action

MPI was depending on the official visits to the different stakeholders to gather the industry's feedback for a continuous improvement of the study programs. Attach (12) The immediate corrective action had been taken through joining the dean of MPI and the vice dean for education affairs to the Academy's consultancy boards as a committee member.

The intended action will be initiating a specific consultancy board from the maritime industry, especially from the port authorities, and maritime authority. See Attach (12) List of the Consultancy Board member and website:

• https://aast.edu/en/colleges/comt/contenttemp.php?page_id=500092

• https://aast.edu/en/colleges/comt/contenttemp.php?page_id=500042