

Report on the Accreditation of Study Programmes
at the
Arab Academy for Science, Technology and Maritime
Transport
College of Fisheries and Aquaculture Technology (CFAT)



(Reference Number I-1776-1)

15th Meeting of the ZEvA Commission on 22nd March 2022

Item 04.02

Study Programme	Degree	Programme Duration	Type of Programme	Maximum annual intake
Fisheries Technology	B.Sc.	4 semesters	full-time	ca. 100
Sustainable Management of Fisheries and Aquaculture Science (SMFA)	M.Sc.	8 semesters	full-time	

Date of digital site visit: 3rd–4th November 2021

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Expert Panel:

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- **Prof. Dr. Christian Möllmann**, University of Hamburg, Institute of Marine Ecosystem and Fisheries Science, representative of academia
- **Dr. Irfan Yulianto**, Programme Manager at Wildlife Conservation Society, Indonesia, representative of the non-academic employment sector
- **Liv Teresa Muth**, Doctoral student: Industrial Biotechnology at the University of Ghent, student representative

Hanover, 09th February 2022

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

1. Decision of the ZEvA Accreditation Commission (22nd March 2022)

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

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

- *Fisheries Technology (Bachelor)*
- *Sustainable Management of Fisheries and Aquaculture Science (Master)*

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 conditions must be fulfilled within 12 months upon awarding of the accreditation. In case the condition is not fulfilled within this period, the accreditation of the programmes will be withdrawn.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 General Aspects

2.1.1 General Recommendations:

- The experts advise to significantly expand on the descriptions given in the module handbooks.
- The experts strongly advise the Academy to discuss the results of the course surveys directly with the students of each cohort to include a larger number of students in the feedback loop.
- The experts pledge for an inclusion of key statistics, such as student's success rates, study duration and so on, in the tracking.

2.1.2 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.

2.2 Bachelor's programme "Fisheries Technology"

2.2.1 Recommendations:

- The HEI should investigate how it could support students more effectively in accessing a broader variety of countries for mobility stays.

2.3 Master's programme "Sustainable Management of Fisheries and Aquaculture Science"

2.3.1 Recommendations:

- The experts recommend that an overview of the newly designed master's programme should be made accessible on the college website so that interested students from Egypt or abroad are able to find basic information. Generally, the existing English

version of the website should be expanded further.

2.4 Recommendation to the ZEvA Commission for International Affairs:

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

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

- Bachelor's programme: Fisheries Technology
- Master's programme: Sustainable Management of Fisheries and Aquaculture Science

The accreditation is awarded under the following two 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. Furthermore, a diploma supplement should be issued to all graduates
2. The Academy should monitor the students' workload as part of the students' survey.

The conditions have to be fulfilled within 12 months upon awarding of the accreditation, or at any earlier point in time.

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.

II. Evaluation Report of the Expert Panel

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 **Fisheries Technology (Bachelor's degree) and Sustainable Management of Fisheries and Aquaculture Science (Master's degree) run by the College of Fisheries and Aquaculture Technology (CFAT) 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 Communities, 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 College of Fisheries and Aquaculture Technology 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 sample survey questionnaire, a summary of the course surveys, more detailed statistical data, a translation of the diversity policy, of the policy handling recognition, the recruitment policy, a statement regarding best practice examples of the QM system and additional information on the financial sustainability of the study programmes.

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 November 2021. 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, graduates and future employers of graduates who are involved in the design and continuous development of the study programmes. 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 College of Fisheries and Aquaculture Technology and staff for the professional organization of the online site visit and for the open and constructive atmosphere during the talks.

1. Governance, Management and Profile of the Academy

Organizational Structure and Mission of the Academy

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 13 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 Science². 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:

"To be a world class university in Maritime Transport and Higher Education in compliance with the international standards of Education, Scientific Research, Innovation and Training while fulfilling its Social Responsibilities in order to maintain its position as the distinguished Arab Expertise House and to be the first choice of the students in the region".

¹ [AASTMT website](#): Last accessed: December 2021.

² [AASTMT website](#): last accessed: December 2021.

³ Last accessed: December 2021.

AASTMT Mission:

"Contributing to the social and economic development of the Arab region by offering distinguished Change Agents who have been qualified through comprehensive educational programs, high caliber faculty, and centers of excellence in research, training and consultancies while strictly committed to the highest levels of Quality".

The college itself as an institution consists of two main departments in the specialization: Fisheries Technology Department and Aquaculture Technology Department. The College employs a number of lecturers from different departments of academic faculties such as Department of Basic and Applied Sciences, Department of Marine Engineering (Faculty of Engineering and Technology), Nautical Department, Protection of the Marine Environment from Pollution and the Meteorology Program (College of Maritime Transport and Technology) (self-report, introduction, p. 8). The college summarizes its mission in the following way:

To be one of the superior academic regional entities in the fields of aquatic resources, by offering a high quality (sic) education, training programs and a qualified scientific research, to serve all Arab interests in various fields to encourage fishing and aquaculture investments (self-report, Introduction, p. 7).

As was explained during the online talks, the study programmes are entirely funded by means of tuition fees. The newly established master's programme will additionally benefit from funds provided through the Erasmus+ framework. Additionally, the college has plans for integrating a future Ph.D. programme into its portfolio.

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. This becomes especially clear with a view to the Academy's mission, where the field of maritime transport is especially accentuated.

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.

The planned implementation of a Ph.D. programme seems promising to the experts. It could strengthen the Academy's profile even further and function as a unique selling point within the field of maritime sciences in the Near and Middle East.

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. 14). 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 Palestine as examples during the interviews.

The online talks revealed that AASTMT and especially CFAT –also keep up different smaller-scale co-operations to further enhance student mobility, such as 15-day practical placements in China supported by full scholarships from AASTMT. One student also mentioned an individual exchange with a higher education institution in Spain.

The newly designed Master programme “Sustainable Management of Fisheries and Aquaculture Science” was successfully set up within the framework of the *Erasmus+ KA2 Cooperation for innovation and the exchange of good practices. Capacity building in the field of Higher Education – 2019* (cf. self-report, p. 96). In the future the programme is envisioned to *provide opportunities for exchanging scientific and research experiences between faculty members and students in participating Egyptian universities as well as European universities* (ibidem). The programme includes European partner institutions with a long and solid expertise in Fisheries, as, for example, the University of Palermo. Currently AASTMT is the first HEI within Egypt to start its programme within the new Erasmus+ programme. The semester best suited for going abroad is supposed to be either the 2nd or the 3rd semester of the new master's programme. As the programme is just about to start, there have, of course, not yet been any experiences in this realm. The programme managers stressed that writing a master thesis at a partner university should be possible in general but was meant to remain an exception rather than the rule.

AASTMT submitted a recognition policy after the site visit (cf. 9 A policy that handles recognition in case of student mobility). It clearly stipulates 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 a 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. As of today, the variety of partner countries outside of the Arab world seems to be rather limited. Nevertheless, 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.

As for the new master's programme, the experts find that the Academy has embarked on a

path that, in their view, will greatly enhance the exchange of students and staff with non-Arab – especially European – countries. In the future it should be closely monitored how these new partnerships are filled with life.

Nevertheless, for a successful participation within the Erasmus+ programme 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 Erasmus+ framework 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.

Furthermore, the Academy should investigate how it could support students more effectively in accessing a broader variety of countries for mobility stays – especially in case of the bachelor's degree, which is not part of the Erasmus+ framework.

Equal Opportunities

A diversity policy is in place (cf. 5 The 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 headphones*, 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*).

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

The HEI mentioned the fact that roughly 90 % of the currently enrolled students at the college are female and around half of the students in the bachelor's programme are female. As the master's programme is new and is just about to start, there are not yet any statistics for this programme concerning the distribution of sexes among the student population.

Due to Egyptian national laws students with disabilities cannot work on fishery vessels. Students with disabilities can nevertheless study both programmes and aim for an onshore employment.

Experts' Appraisal

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

Unlike a few years ago, it is now possible for disabled students to enrol in the bachelor's programme, even though they still cannot work onboard upon graduation. The experts

acknowledge that progress has been made here, which is to be appreciated.

2. Assessment of the Study Programme/s

2.1 Intended Learning Outcomes

2.1.1 Bachelor's programme "Fisheries Technology"

The bachelor's programme "Fisheries Technology" aims for an education within the field of *fishing vessels navigation and designing of fishing equipment that qualifies graduates to work on fishing vessels as an alternate officers, to be responsible for navigational surveillance (after completion of ministerial requirements for practicing the profession) or fisheries observers on fishing vessels, also as fishery managers in fishing ports* (self-report, p.116).

The intended learning outcomes of the programme are summarised by the Academy in its self-report (cf. self-report, pp. 117ff.) and within the module catalogue (cf. Appendix A). A diploma supplement, which also would describe the intended learning outcomes, was not provided (cf. chapter 1 on Student Mobility and Internalisation). The Academy summarises the intended learning outcomes as followed:

Students should acquire a *conceptual and analytical knowledge of basic sciences related to fisheries technology, fisheries management and navigation techniques, and a holistic understanding of tools and technology used in the different branches of sciences interrelated with fisheries science*. Furthermore, they should be able to *apply the principles and theories of fishing vessel and fishing operations and develop appropriate navigation methodology in different situations and acquire skills to analyze novel challenges in fisheries field and to understand planning innovative strategies and the ability to use suitable tools to search, analyze and interpret data and associated uncertainty*. In addition to that, students should develop *advanced technical skills related with fisheries and problem-solving skills*. Students should *demonstrate the ability to comprehend multiple fisheries navigational tasks and solve unfamiliar problems in various conditions and the ability to deal with legal and normative documents*. Lastly, students should be enabled to *effectively access and use available information resources as well as demonstrate an understanding of relevant information for building professionalism, capacity and work ethics* (cf. self-report, p. 117). Each of the points mentioned is subsequently elaborated in detail in the self-report (ibidem, pp. 117ff.).

The intended learning outcomes roughly focus on different levels: Firstly, critical and scientific problem-solving oriented thinking (cf. ILOs 1, 4, 5, 7 and 10, self-report, p. 117). Secondly, technical, and navigational competencies, which enable students to obtain the skills necessary to work onboard a fishing vessel (cf. ILOs 2, 3, 6 and 8, ibidem). Thirdly students shall develop competencies that focus on employability, such as the competency to deal with the respective legal documents (cf. ILO 9, ibidem) or developing a set of work ethics (cf. ILO 11, ibidem).

By doing so the programme's approach aims to pursue a holistic approach connecting the various methods, tools, and technologies, while also providing students with a basic understanding of ecology and marine biology (cf. ILO 2, ibidem).

2.1.2 Master's programme "Sustainable Management of Fisheries and Aquaculture Science"

The master's programme "Sustainable Management of Fisheries and Aquaculture Science" is a consecutive degree *within the framework of the FishAqu - Erasmus + project* (self-report, p. 116). The programme intends to further enhance competencies gained during the bachelor and complement these by management skills.

The intended learning outcomes of the programme are summarised by the Academy in its self-report (cf. self-report, pp. 134ff.) and within the module handbook (cf. Appendix C). The Academy summarises the intended learning outcomes as followed:

Students should acquire a *conceptual and analytical knowledge to enable the critical evaluation of projected impacts of aquaculture/fisheries on the environment, society and economy to safeguard sustainability* as well as develop a *holistic understanding of fisheries and aquaculture management through integration of innovative technologies and local ecological knowledge*. They should be able to *integrate knowledge to address the challenges of aquaculture and/or fisheries sectors through conflicts resolution at local and national levels* and have *the skill to analyze novel challenges in the field and to plan innovative strategies*. Additionally, students should *have the ability to use suitable tools to search, analyze and interpret data and associated uncertainty as well as a holistic approach to the taking of professional decisions by balancing the production aspects (costs, profits, security) with impacts*. *The development of advanced technical skills related with fisheries and aquaculture and of problem-solving skills* is another aim of the programme. Students should have *the skills to use and customize computer modelling tools designed for fisheries and aquaculture and the ability to share knowledge to others* as well as being able to *effectively access and use available information resources*. Finally, the students should be able to *deal with legal and normative documents and develop general skills and attitudes towards research and applied activities on the field of fisheries and aquaculture* (cf. self-report, pp. 134ff.).

Similar to the bachelor's programme, the master's programme also aims at imparting competencies at different levels. The master's programme "Sustainable Management of Fisheries and Aquaculture Science" also seeks to provide basic as well as in-depth scientific methodological skills and solution-oriented thinking (ILO A1, B1, B2, C1, C2 and C3, self-report, p. 134f.). Furthermore, fisheries and fisheries management as well as technological and ecological approaches are to be linked in a holistic approach (ILO A2, B2, ibidem). There are also competencies in basic legal knowledge (ILO D3, ibidem, p. 135) and communication skills (ILO D2, ibidem). As a more in-depth aspect, competencies in the field of (international) conflict resolution strategies, which can arise in the context of fishing rights and a scientific qualification for doctoral studies are added (ILO A3 and D4, ibidem, 134f.).

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, the self-report 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.

Even though the students get a more generalist education and are also qualified within the field of engineering in the bachelor's programme, the focus of said programme is clearly on navigation. It is welcome that a broad scientific base is laid in the undergraduate programme – also with respect to a possible consecutive master programme.

On the other hand, the newly designed master's programme builds up on the foundations laid in the bachelor's programme, deepens the already acquired skills and expands on more advanced competencies, such as on conflict resolution. In addition, the master's programme clearly claims to prepare students for further academic career steps, such as doctoral studies.

Nevertheless, it should be mentioned that the presentation of the soft skills taught and how these connect to the presented intended learning outcomes within the module handbooks could be improved. The experts conclude that the intended learning outcomes are generally in line with the European qualification framework and respectively correspond to the European bachelor/master-level.

2.2 Concept and Structure of the Study Programmes

2.2.1 Bachelor's programme "Fisheries Technology"

The bachelor's programme "Fisheries Technology" comprises eight semesters with a total workload of 138 Credit Hours in the American Credit hour system, which roughly translates into 276 ECTS. Each semester 17–18 CH (34–36 ECTS) are to be achieved by the students (cf. self-report, Distribution of the credit hours of the courses, pp. 120f. & self-report, Program Planning Sheet, pp. 124ff.).

The following description is based on the course schedule provided by the HEI in its self-report (cf. pp. 124ff.):

In the 1st semester students take basic classes in mathematics, English, computer sciences, chemistry, and marine biology (containing classes on aquatic ecology, ichthyology, and aquatic vertebrates). According to staff members, basic classes within the fields of maths, mechanics, marine engineering, fishing gear and so on, are usually shared classes with programmes of neighbouring disciplines. It was mentioned that the connection between fisheries and the basics (e. g. in chemistry) is mainly taught within the respective lab classes and practical sessions.

The 2nd semester is used to deepen competencies in English and mathematics and marine biology as well as to provide basic knowledge on meteorology, physics and fishery science. There is also a module on statistics, which is used to especially stress the importance of quantitative methods. The lecturers mentioned that quantitative tools, such as R, had been newly

introduced into the curriculum in 2019, but had been growing in importance ever since.

The 3rd and 4th semester both partly continue on some of the basics, but mainly focus on naval training (e. g. seamanship, navigation etc.). The 4th semester also contains the first elective courses, where students can choose between a module on aquatic biotechnology or on ecosystem conservation.

The 5th and 6th semester both focus on deepening the students' knowledge on naval training and fishery, while also providing for basics on maritime law and different electives which mainly focus on different soft skills (such as IT skills, entrepreneurship, ethics, scientific writing communication etc.). Due to national standards and guidelines, the module called "scientific writing" is an elective class. There is also an obligatory class called "Research Methodology" (also in the 6th semester), which covers scientific writing, ensuring each student gains basics skills in this field.

The 7th semester encompasses either a guided sea training or a simulator training to ensure that students gain a practical insight into the work on board. According to staff members, the Academy cooperates with local companies where these trainings can take place. Additionally, the 7th semester also encompasses the first part of the graduation project.

The 8th and final semester includes another set of selective courses (on different kinds of fishing, either on- or offshore) as well as various modules on ecology and management skills. It also includes the second part of the graduation project.

The thesis topics are proposed by the programme managers and take the individual preferences of the respective student into account. The number of supervisors ranges from two to three and can include representatives of the industry. The teaching staff also pointed out that they usually encouraged to publish their theses and supported them in this endeavour.

2.2.2 Master's programme "Sustainable Management of Fisheries and Aquaculture Science"

The master's programme "Sustainable Management of Fisheries and Aquaculture Science" comprises four semesters with a total workload of 120 ECTS. During each semester 30 credits are to be achieved by the students (cf. self-report, Study Plan, p. 132).

The following description of the master's programme is based on the study plan provided by the HEI in its self-report (cf. self-report, pp. 132f.).

In the 1st semester, students take a module in which applied fish biology is taught. On the other hand, students expand their knowledge in quantitative methods by taking a module on applied statistics. Finally, in addition to the first elective courses, the module "Aquaculture Nutrition and Production" is taught, in which the students are given theoretical and practical basic knowledge regarding aquaculture nutrition and aquafeed management (cf. module handbook, Appendix C, p. 7).

area pool of electives is also included in the 2nd semester. Furthermore, students deepen their management knowledge in the module "Sustainable Fisheries Management" as well as their technical knowledge in the module "Aquaculture Systems and Engineering". Knowledge in statistical analysis skills is also further developed in the module "Fishery Analysis and Stock Assessment".

In the 3rd semester, the module "Transferable Competencies in Fisheries and Aquaculture" focuses on career-relevant soft skills and career development opportunities (cf. module handbook, Appendix C, p. 19). Additionally, students have to produce their first thesis.

The 4th and final semester is entirely devoted to the preparation of the second thesis. The theses are organised in a similar way than in the bachelor's programme.

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.

Thus, in the bachelor's programme, the relevant scientific fundamentals are taught, which are further deepened in advanced semesters and supplemented by skills that are necessary for the operation of a fishing vessel. Besides marine fisheries, both programmes also include freshwater fishery, which makes sense, especially when considering the proximity of the river Nile.

Both programmes include, especially in the final year of the bachelor's programme and respectively in the first year of the master's programme, elective course sections, which enable students to set individual specialisations to a certain extent and to actively participate in shaping their own course of study.

Due to the division of the theses in two modules and the fact that they are written over an entire year, it is possible to produce quite elaborate theses. It should be remarked as very positive that the theses are usually published.

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. Furthermore, it was not clear whether students always have access to the module handbooks – although course information is made available to students via online platforms (such as Moodle), the experts were unable to find the module handbooks on the website. In case of the bachelor's programme an abbreviated module overview is presented on the programme's web [pages](#)⁴. The master's programme is not yet presented on the website, which is understandable, as it is still new. The experts therefore recommend that it should also be described transparently on the college's website so that interested students from Egypt and abroad are able to obtain information on it..

⁴ Last accessed: January 2022.

2.3 Teaching Faculty

The HEI submitted a policy for staff recruitment in the aftermath of the site visit (cf. 7 The policy for recruitment of staff members). There the criteria for teaching undergraduate and graduate students are presented. These criteria state that for teaching undergraduate students at least a master's degree in fisheries technology or in an equivalent specialisation is necessary (ibidem, p. 1). For teaching graduate students in a master's programme, a Ph.D. is necessary (ibidem, p. 3). According to the self-report the college also takes measurements that at least 50 % of the staff members hold a Ph.D. or are about to qualify for it (self-report, Appointment and Evaluation of Lecturers Procedure, p. 109).

The Academy also provided a list of all staff members involved in teaching in both programmes (self-report, Lecturers list, p. 111) as well as detailed CVs of all staff members (cf. Appendix B).

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.

2.4 Infrastructure, Resources and Student Support

Infrastructure and Technical Equipment

The teaching staff stated that the college has access to its own simulator, which is a class A-

simulator (TRANSAS-Fishing Simulator NTPRO-5000) whose software supports five geographical areas and ten naval vessels of different lengths and sizes (cf. self-report, CFAT Facilities, p. 9f).

According to the programme managers, CFAT maintains one big laboratory, which is divided into different sections that serve different purposes. It is equipped with 22 stereomicroscopes and all the necessary lab equipment (cf. self-report, Research Laboratory (Chemical and Biological), p.10). Furthermore, a fishing net lab is in existence, *where students get training in advanced techniques for manufacturing fishing nets* (self-report, Fishing Nets Lab, p. 11).

Additionally, they stated that there are different memorandums of understanding between CFAT and other research institutions in Alexandria (e. g. the University of Alexandria) in place to facilitate and share their laboratory capacities. It is also possible to use the facilities of other colleges within AASTMT, if necessary. It was stated that the programmes can use a research vessel provided by the institute for oceanography of the University of Alexandria for practical training onboard.

The interviewed students expressed their general satisfaction with the lab facilities.

Students are also provided with uniforms for marine exercises (cf. self-report, Fisheries Technology department, p. 8).

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 at CFAT as encouraging and confirmed there was a generally constructive and open feedback culture.

Students explained that the average course size was about 10 students per class, with a maximum of 16 per class. At least seven students have to choose an elective course to let it take place.

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 smaller-scale exchanges in China, cf. chapter 1) 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 some of the experts had already been involved in the preceding accreditation procedure and 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 co-operations which grant access to such a vessel. Therefore, the panel concludes that the equipment is well suited to run both study programmes.

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.

2.5 Methods of Teaching and Student Assessment

Admission to the Programme(s)

To gain admission to the programmes, applicants must *have a certificate of completion of*

general secondary school or equivalent certificates (self-report, Admission Requirements, p. 12). Additionally, applicants must *achieve the minimum admission score determined by the Supreme Council of Universities and by the Academy's Council of Educational Affairs and pass the entrance examinations* (ibidem). Prospective students must also *pass the English language test as well as medical examination tests* (ibidem).

For foreign certificates, respective regulations for recognition are in place (cf. self-report, Admission Requirements for Equivalent Foreign Certificates, p. 13).

For the master's programme applicants must additionally hold *a Bachelor degree in a relevant specialization from an accredited institution with a minimum grade of "Good"* (self-report, Entry Requirements, p. 98).

Student Assessment

A large variety of teaching methods is applied both at bachelor's and master's level. In all programmes, most 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 in the 16th week (cf. self-report, p. 18). 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 (ibidem). Besides written exams, there are oral exams, online exams and assignments. These subdivide into practical and theoretical exams.

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

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

Teaching Methods

The students described that the applied teaching methods mainly consisted of standard lectures (about 80% of all classes), 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.

When asked whether they would use more problem-based learning or more traditional teaching methods such as lectures, the teaching staff replied that from their point of view, communication skills were a key competency for students, enabling them to successfully work in multinational contexts. Therefore, they would aim for a more communicative teaching approach.

Additionally, the students mentioned that the Academy maintained various co-operations, which allow for a placement of interested students in practicals and/or research projects.

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 a variety of different ways of assessing students and is competency-based in general. The Academy has also shown that there are mechanisms in case students feel graded unfairly or need to repeat exams.

However, the mixture of teaching methods applied stayed vague during the review. The experts are convinced that there is a mixture of teaching methods, which is also applied in the classroom, but this could be pointed out more explicitly in the course descriptions.

2.6 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 (cf. self-report, College Education Quality Management System (EDQMS), pp. 17ff.).

As described during the digital site-visit and in the self-report, AASTMT's quality assurance system addresses different levels: First there can be optional audits at college level, the second 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 must undergo an obligatory national accreditation procedure every five years. According to AASTMT-representatives, a programme may slightly deviate from the original curriculum (ca. 15–20 %) during this five-year period. If more substantial changes are necessary which result in more a comprehensive deviation from the original programme design, the re-accreditation of the programme is initiated prematurely.

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 (cf. self-report, pp. 112ff.).

The Academy also monitors key indicators such as the number of students, drop-out-rates, transfer rates to other programmes and so on. This becomes clear from a document which the HEI provided in the aftermath of the site visit at the experts' request. (.

Responsibilities and Stakeholder Involvement

As mentioned in a previous chapter (cf. chapter 1) company representatives are part of the college's industry consultancy board and as such are partaking in the design of curricula as stakeholders of the non-academic employment sector. Besides companies the board also include other stakeholders, for example communal representatives. This board meets annually and discusses the competencies, necessary for employment, and the change in the curricula's designs necessary to achieve these.

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. Student representative mentioned that 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 is provided (cf. 1 A blank questionnaire). A question intended to measure the accredited workload is not included (ibidem).

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

Evaluation results could only be provided in Arabic (cf. 10 A brief statement of best practice examples, that show the function of the quality management system), but an analysis and a short discussion of the results were presented to the expert panel in a short presentation (cf. CFAT – (ZEVA)). Former students told the experts about a situation, where they wished for the implementation of more oral presentations as the preferred form of student assessment for a specific course, which lead to a change in the chosen form of assessment in said course.

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, but it could go more into detail. For example, student success rates, or data on the study duration do not seem to be used for quality assurance purposes.

2.7 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 programme's [website](#)⁵ provides 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. However, links to relevant advisory services and regulations are missing. The newly established master's programme does not yet have its own internet presence.

Experts' Appraisal

As described in chapter 2.1, some of the documents that were reviewed during the site visit cannot be accessed on the English-language website. From the discussions during the review, it became clear that most 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.

In this way, however, the documents are often accessible only to students who are already enrolled, not to potential students or foreign students thinking about studying at AASTMT. The experts therefore recommend further expanding the English-language version of the website – especially in view of the expected increase in international students induced by the master's programme's participation in the Erasmus+ programme.

Additionally, the module handbooks provided could be more detailed in parts. Besides

⁵ Last accessed: January 2022.

improving the descriptions, it might be helpful to also specify the workload in more detail by clearly differentiating between on-site-time and self-study-time in the descriptions.

2.8 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. Another very positive development is the increase in staff numbers since the last accreditation, which also allows for an even closer support of the students. 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.

It has become apparent in the course of the review procedure that the Academy is still taking a high effort to further enhance its international profile and outlook. The establishment of the new master's programme within the Erasmus+ framework is a great success for the college and a great chance for the future at the same time. The decision to have the programmes assessed against a set of European standards is part of the process and makes particular sense in the context of the Erasmus+ participation.

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).

III. Appendix

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

College of Fisheries and Aquaculture Technology, as one of the entities of the Arab Academy for Science, Technology and Maritime Transport, had a great pleasure to meet with the distinguished experts' panel. Their thoughtful comments and thorough review of our two programs, will help improve the successful progress of those programs. All the findings and appraisals highlighted by the experts' panel will be taken into our full consideration.

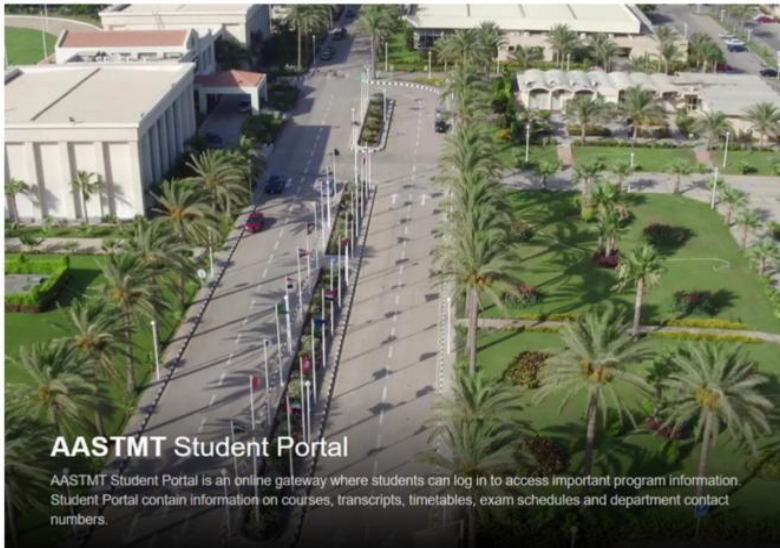
In addition, we would like to express our sincere gratitude and appreciation to ZEvA and the experts' panel for the effort and time spent in reviewing our two programs, hopefully we would extend means of cooperation between your esteemed entity and other AASTMT colleges. Moreover, we would like to emphasize that we are continually trying to develop our college at all levels, particularly in the comments highlighted by the experts' panel. Nevertheless, the following points provide more clarification for your inquiries:

- 1- As we pay more attention for postgraduate studies (Master) and soon PhD, the diploma supplement is planned to be presented in the future.
- 2- All students have access on website for registered and non-registered students for both undergraduate studies and postgraduate studies, for postgraduate studies Link, it was updating and now AAST technical department has finished uploading all the necessary information that has to be published on.

N.B: Regarding college course descriptions all are uploaded on CFAT's official website except for some courses e.g. basic and applied sciences courses that follow other departments in AAST. However, a contact with coordinators of those departments is being conducted to keep consistency of all uploaded materials.

- 3- In addition, for registered students, they always have access to MOODLE link through student portal for both undergraduates and postgraduates, by using their registration number and pin code, and here is a sample of the student portal link:

1



Student Portal

لافضل تجربة استخدام يرجى استخدام المتصفح Firefox

Registration

[Open Registration](#)

Login

Registration Number

Pin Code

Remember Me

[Login](#)

Can't log in or Forgot Password? [Click here](#) to send your password.

2

Shahd Hossam Ahmed Youssef Mohamed
711010902

Home

Courses

- Fisheries Science
- Physics
- Fish Physiology
- Mathematics (2)
- Meteorology
- Statistics
- English 1

Services

- Student Results
- Student Schedule
- Clinic Reservation
- Covid-19 Vaccine Details
- Moodle (September 2021/22)

<https://studentportal.aast.edu/?CarouseExampleItemval>

إعلان هام

الطلاب الأقران... في إطار حرص الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري على تطبيق الإجراءات الاحترازية لمواجهة فيروس كورونا، على جميع الطلاب وضع نسخة من استمارة إثبات الحصول على التطعيم من خلال بوابة الطلبة (بيانات تلقي تطعيم كورونا) في موعد أقصاه 3 فبراير 2022 وذلك حتى لا يتم حجب ظهور درجات الطلاب.

Dear students... Within the Arab Academy for Science, Technology and Maritime Transport (AASTMT) implementation to the precautionary measures to confront the "corona virus", it should be noted that all AASTMT students must upload a copy of COVID-19 Vaccination Record Card (Proof of vaccination) through AASTMT Student Portal (Corona Vaccination Receipt Data), where the dead line will be on 3- 2- 2022, as to prevent the blocking of student's grades.

إعلان هام

في إطار حرص الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري على تطبيق الإجراءات الاحترازية لمواجهة فيروس كورونا، على جميع الطلاب وضع نسخة من استمارة إثبات الحصول على التطعيم من خلال بوابة الطلبة (بيانات تلقي تطعيم كورونا) في موعد أقصاه 3 فبراير 2022 وذلك حتى لا يتم حجب ظهور درجات الطلاب.

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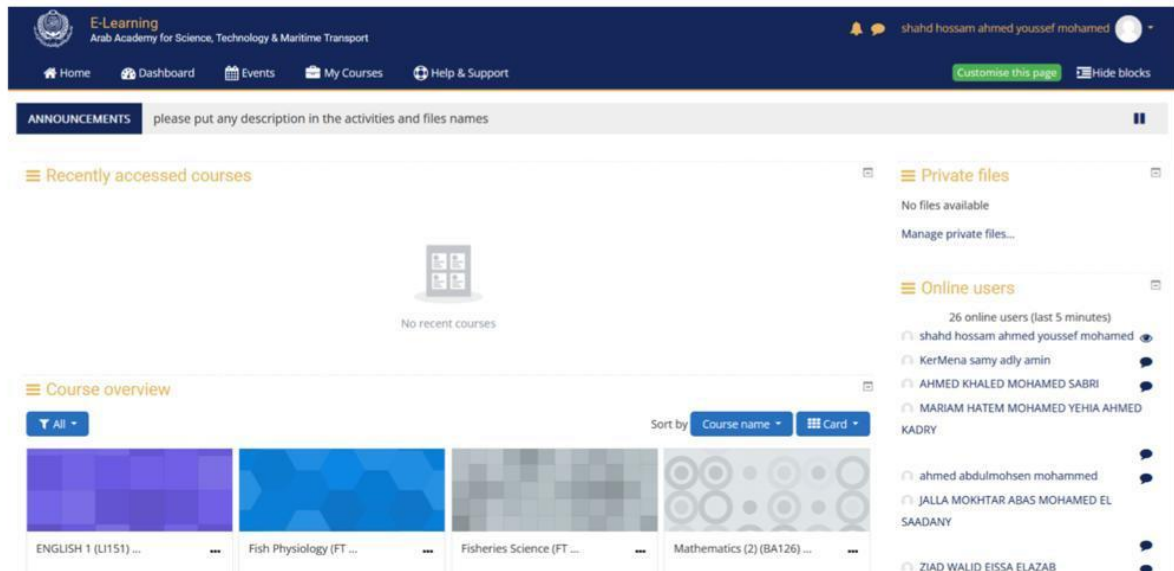
Moodle (September 2021/22)

Student Results

Student Schedule

Student Transcript

3



E-Learning
Arab Academy for Science, Technology & Maritime Transport

Home Dashboard Events My Courses Help & Support

shahd hossam ahmed yousef mohamed

ANNOUNCEMENTS please put any description in the activities and files names

Recently accessed courses

No recent courses

Course overview

Sort by Course name Card

- ENGLISH 1 (L1151) ...
- Fish Physiology (FT ...
- Fisheries Science (FT ...
- Mathematics (2) (BA126) ...

Private files

No files available

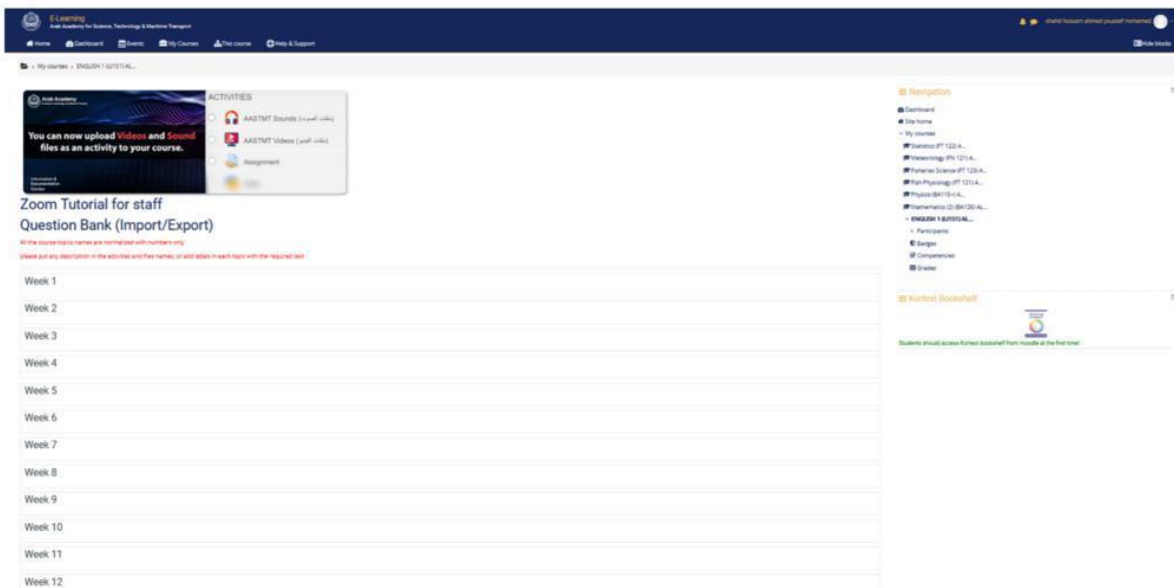
Manage private files...

Online users

26 online users (last 5 minutes)

- shahd hossam ahmed yousef mohamed
- KerMena samy adly amin
- AHMED KHALED MOHAMED SABRI
- MARIAM HATEM MOHAMED YEHIA AHMED KADRY
- ahmed abdulmohsen mohammed
- JALLA MOKHTAR ABAS MOHAMED EL SAADANY
- ZIAD WALID EISSA ELAZAB

4



E-Learning
Arab Academy for Science, Technology & Maritime Transport

Home Dashboard Events My Courses My course Help & Support

My courses > ENGLISH 1 (L1151) ...

ACTIVITIES

- ANSTMV Sessions (عروض)
- ANSTMV Videos (فيديو)
- Assignment

Zoom Tutorial for staff
Question Bank (Import/Export)

In the course topics names are highlighted with numbers only

Please put any description in the activities and files names, or add labels in each topic with the required link

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12

Navigation

- Dashboard
- Site home
- My courses
- Enrollment PT 1211A...
- Fisheries Science (FT 1211A...
- Fish Physiology (FT 1211A...
- Physics (B0111)...
- Mathematics (2) (BA126)...
- ENGLISH 1 (L1151)...
- Participate
- Logout
- Comunicate
- Home

Kuratel Bookshelf

Students should access Kuratel bookshelf from inside of the first topic!