

JOINT OPINION BY THE EXPERTS GROUP ON THE ASSESSMENT OF A  
STUDY PROGRAMME

STUDY PROGRAMME

Navigation

Maritime Institute of Postgraduate Education Named after  
Rear Admiral Fyedor Fyedorovich Ushakov (AUMI)

Experts:

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\_\_\_\_\_ (Date)

## 1. Summary

This report provides the results of the assessment of the bachelor's study programme in Navigation, implemented at Maritime Institute of Postgraduate Education named after Rear Admiral Fyedor Fyedorovich Ushakov (AUMI).

The evaluation of the quality of education in the field of navigation was carried out at the request of the AUMI. The visit was carried out in accordance with the existing procedure of programme evaluation of the Latvian Quality Agency for Higher Education (AIKA). The study process of the assessed navigation programme in the academic year 2020/2021 took place under conditions of the covid pandemic. The AUMI has introduced a number of measures to offset the negative effects of the pandemic on the quality of education. The expert team noted that they are of a temporary nature. The study programme has not been accredited before.

The visit was preceded by the familiarisation of the expert team with the self-evaluation report (SAR) submitted by the AUMI. The team also held organisational meetings to discuss the issues presented therein, matters requiring clarification with the AUMI authorities and a detailed schedule of the visiting process.

The visit started with a meeting with the management of the AUMI and reviewing of the AUMI infrastructure. Then on the following day, the visit was continued, meeting with the academic staff study programme, meeting with employers, visiting the infrastructure in Kherson seaport, meeting with the students of the study programme. Before the end of the visit, the degree of fulfilment of the criteria was assessed and recommendations were formulated.

The findings of the evaluation and the recommendations of the expert team are summarized in this report.

Economic and social grounds for establishing the study programme are based on the regional, national and international maritime industry needs and demands and, on the other hand, there are the needs of applicants for higher education (students) to award a bachelor's degree, which gives AUMI graduates the opportunity to pursue a management level position on board. Understanding of the AUMI mission and role in the region and in the maritime industry sector is clear enough. The AUMI management has an opinion and sees opportunities to ensure the availability, quality and sustainability of financial resources, using three sources: students' fees, short courses fees and crewing service inflows. The Institute has developed, implemented and maintains a quality management system in accordance with the requirements of ISO 9001: 2015.

AUMI has premises with the very good potential to improve and expand. The set of modern specialised simulators was upgraded in AUMI in February of 2021, is certified by the Maritime Administration and is widely used in the study process.

Study programmes, presented by AUMI for assessment, are developing in accordance with International Convention STCW requirements. But the programmes' content does not fully reflect the requirements of the Ukrainian National Qualifications Framework prescribing competencies of the first level of higher education (bachelor's degree) regarding bachelor's

competencies as the ability of a person to solve complex special-purpose problems, application of certain theories and methods of relevant sciences should be visible and serve the purposes of the high school.

The use of information and communication technologies in the implementation of the study programme in classes is insufficient, classrooms' computers not connected with the Intranet and the Internet, classrooms are poorly equipped with electronic demonstration devices (projectors or large LED screens).

The teaching staff is a mix of lecturers: acting and former seafarers, very experienced academic staff - professors (most of them started to cooperate with the Institute in 2019/2020 years). But most scientific publications are published in conference proceedings and on behalf of other institutions and as a sequence may be attributed to the person, but not to the AUMI. At that moment AUMI has not demonstrated available scientific or appropriate laboratory or equipment or any availability to access it. The expert team would like to recommend developing scientific work directions, creating appropriate research facilities and equipment, enhancing working groups, involving students, and attracting possibilities for additional financing. It is desirable to cultivate and develop institutional academic culture.

The assessment concludes that the programme has a potential for development although a number of challenges and shortcomings should be addressed. The recommendation of the expert group is to accredit programmes for two years - a term appropriate for the implementation of the necessary improvements and revisions.

## **2. Information about the assessment procedure (timeline, experts group, scope of evaluation)**

The site visit (organized partly remotely) to get acquainted with the premises and equipment took place on April 23rd, 2021. The site visit (organized fully remotely) - additional demonstration of the equipment and interviews with the management, academic staff, students and employment representatives took place on May 5th - May 6th, 2021. The assessment was conducted by an international team of experts:

- Prof. Viktoras Senčila, Lithuanian Maritime Academy, (team chair);
- Mr. Arnis Križus, (team secretary, representative of employers);
- Prof. Janusz Uriasz, Maritime University of Szczecin;
- Mr. Vasyl Chornopyskyi, Precarpathian National University named after Vasyl Stefanyk, (student member);
- Docent Iurii Iarmolovych, National University "Odessa Maritime Academy".

The assessment was based on the following sources of information:

- Self-assessment report (SAR) and supplementary information provided by AUMI prior to the start of the assessment procedure;
- Additional information supplied by AUMI at the request of AIC prior to the site visit;
- Information gathered during the partly remote site visit on April 23, and the remote

site visit on May 5th -6th from meetings with the top management of AUMI, the central administration and support staff, the study programme directors, teaching staff, students, and employer representatives;

- Additional information supplied by AUMI during the assessment procedure.

The assessment report is based on the analysis of the available information from the sources listed above, in-person and remote discussions of the expert team members, and consensus decisions of the expert team.

The assessment procedure of the bachelor's study programme "Operation of Ship Power Plants" was based on ten defined criteria:

- Criterion 1. Strategy, aims and programme management;
- Criterion 2. Structure and content of the programme;
- Criterion 3. Teaching and learning materials;
- Criterion 4. Techniques and methods of educational activity;
- Criterion 5. Teaching staff;
- Criterion 6. Resources;
- Criterion 7. Research work;
- Criterion 8. Cooperation and internationalisation;
- Criterion 9. Employability of graduates;
- Criterion 10. Student services.

Each criterion was assessed according to the following evaluation scale:

- Excellent – no deficiencies in meeting the set criterion have been identified;
- Good – minor deficiencies in meeting the set criterion have been identified;
- Average – deficiencies have been identified in meeting a criterion, but they can be eliminated within a short period of time;
- Poor – significant deficiencies have been identified, and they cannot be eliminated within a short period of time.

Overview of the assessment of criteria:

Criterion 1. Strategy, aims and programme management	<b>Average</b>
Criterion 2. Structure and content of the programme	<b>Average</b>
Criterion 3. Teaching and learning materials	<b>Average</b>
Criterion 4. Techniques and methods of educational activity	<b>Average</b>
Criterion 5. Teaching staff	<b>Average</b>
Criterion 6. Resources	<b>Average</b>
Criterion 7. Research work	<b>Poor</b>

Criterion 8. Cooperation and internationalisation	<b>Poor</b>
Criterion 9. Employability of graduates;	<b>Good</b>
Criterion 10. Student services.	<b>Good</b>

### **3. General description of the Higher Educational Institution profile**

Maritime Institute of Postgraduate Education named after Rear Admiral Fyedor Fyedorovich Ushakov or in short Admiral Ushakov Maritime Institute (AUMI) is a private higher education institution founded in 21.02.2000 with an aim to provide preservice and in-service training for seafarers working on the ships of Ukrainian and foreign shipping companies.

The geographical position of the Kherson region, the presence of a river waterway, the Black and Azov seas contribute to the development of water transport. Kherson and Skadovsk seaports and Kherson river port have connections with sea and river ports of the Black Sea countries. The city of Kherson is located on the Dnieper river, has a river and seaport, therefore according to the institute administration, AUMI educational programs offer training both specialists for the marine industry and river navigation.

Currently, Ukrainian law allows “junior specialists” to occupy positions of not higher than operational level officers on board a ship. The main idea behind the establishment of the bachelor's program, according to representatives of AUMI management, is to award a bachelor's degree, which gives graduates the opportunity to pursue a management level position on board.

The first enrollment of students for bachelor's programs was carried out in 2016. The first graduation took place in June 2019 for students who already had college-level education (level 5 according to ISCED) and corresponding qualification level “junior specialist” (according to Ukrainian law) before studies in AUMI and entered a reduced 3-year bachelor's program.

According to the information provided by the AUMI, the number of bachelors in all courses and all study programs is currently about 200 students.

In addition, the Institute continues its initial activities - organizes refreshing and professional upgrading courses for seafarers, currently implementing about 70 short-term programs, and carries out seafarers' employment (“crewing agency”) activities, which are also sources of finance for the Institute.

## 4. Strategy, aims and programme management

AUMI announced its mission, which is reflected in the Strategic Development Plan for 2017-2027, which is “training of new generation specialists for a marine industry in today's scientific and technological progress”. Strategic Development Plan is posted on the official website of the AUMI. It coincides with the educational programme goals because it assumes the final result - qualified graduate - Bachelor of Navigation.

Economic and social grounds for establishing the study programme are based on the regional, national and international maritime industry needs and demands. According to the BIMCO manpower report “The global supply and demand for seafarers in 2015” Ukraine is among the top-5 countries that supply qualified personnel to the international maritime labour market. These factors also contribute to the economic growth of the Kherson region. On the other hand, there are the needs of applicants for higher education (students) to award a bachelor's degree, which gives AUMI graduates the opportunity to pursue a management level position on board. Most of the students in the institute have a certificate of rating competence or a diploma of higher education for another speciality and the major part of students (90%) receive education on correspondence formation and in parallel work in the marine industry.

Educational programme management is based on the corresponding AUMI regulatory documents:

- Internal regulation for quality assurance;
- Program of measures to ensure the quality of the educational process and the quality of higher education in the private institution "Maritime Institute of Postgraduate Education named after Rear Admiral Fyodor Ushakov";
- Regulations on the formation, approval and updating of educational programs.

The procedure for internal quality assurance is as following:

- Applicants for education, employers submit proposals to change the content of an educational program component.
- A teacher examines the proposal, makes her/his own changes, comments, suggestions and submits it to the department.
- The department discusses the proposal, attracts a guarantor of the educational program, submits a proposal to the Academic Council.
- The Scientific Council takes a decision on approval or rejection of the proposal.
- The Rector approves the changes in the educational program.

The Department of marine specialists training of the AUMI bears responsibility for the implementation of the educational program. Other structural units of the Institute, namely the Department of humanitarian preparation, Department of Basic Training are involved in the implementation of educational programs as well.

As it turns out from the SAR and the interview, that monitoring of educational programs is carried out on an annual basis to determine the achievement of the set goal and compliance of

job seekers, employers and other stakeholders needs providing surveys (questionnaire) of applicants of education (students), employers and other groups of the parties concerned.

The Institute has developed, implemented and maintains a quality management system in accordance with the requirements of ISO 9001: 2015. In November 2019, the group of Bureau Veritas Certification Ukraine conducted the first supervisory audit of the Quality Management System for compliance with the requirements of the international standard ISO 9001: 2015. The audit was successful, the Institute received a corresponding certificate.

SWOT analysis of the study programme is presented in the SAR as an annex, but does not provide a detailed analysis of the situation. The SWOT analysis is essential for improving the quality of the programme ensuring its sustainability. Table with key-performance indicators (KPI) is presented in the SAR. Set of KPIs aimed to periodically monitor daily, monthly or annual activities providing information on how the institution reaches its goals.

The admission to the AUMI is carried out by the Admission Commission, the composition of which is approved by the order of the Institute Rector, who is its chairman. The Admission Commission is valid according to the Regulation on the Admission Commission of the Institute approved by the Academic Council of the Institute in accordance with the Regulation on the Admission Commission of the Higher Education Institution, approved by the Order of the Ministry of Education and Science of Ukraine since October 15th, 2015 No. 1085, registered in the Ministry of Justice of Ukraine November 4th, 2015 to №1353 / 27798. The Regulation on the Admission Commission of the Institute is published on the Institute website.

Admission for training at the institute is carried out within the limits of licensed scope of the speciality 271 River and Sea transport (educational programs of navigation, the operation of ship power plants, the operation of ship electrical equipment and automation means) exclusively for the means of physical and/ or legal entities. Admission for training for the second (third) and subsequent courses is carried out within vacant places of licensed scope. To obtain a degree of higher education, the bachelor degree, persons who received a complete general secondary education or educational and qualification level of a junior specialist are accepted to the AUMI. To obtain a degree of higher education in another speciality, persons who have previously received the same or higher level or are receiving it at least for the period of one year and fulfilling the individual curriculum in full scope.

The expert team would like to make a general remark about academicism and the mission and vision of the Institute as a part of the higher education system. Ukrainian National Qualifications Framework prescribes competencies of the person for the seventh level of the Framework or first level of higher education (bachelor's degree) as following: “ability of a person to solve complex special-purpose problems and practical challenges in certain fields of professional activity or in the course of study, which solution involves the application of certain theories and methods of relevant sciences and is characterized by complexity and ambiguity of conditions”. It is hard to distinguish in the programme areas where theories and

methods of science (transport) are being delivered and students in their turn demonstrate a weak understanding about the importance of providing education on next levels instead of main (only) focus on STCW convention.

The expert team would also like to make a few remarks on what is commonly referred to as academic culture reflected in attitudes, values and ways of behaving that are shared by people who work or study in institutions. Academic culture is reflected in many aspects: perception of the mission of higher education, institutional dress code, knowledge of foreign languages, behavioural traditions, quality of documentation, and so on. Academic culture needs to be improved. Among other things, it is reflected in the quality of the documents and the accuracy of the data presented.

### ***Strengths***

- Economic and social grounds for establishing the study programmes are presented clearly.
- AUMI announced the mission of the AUMI, which is reflected in the Strategic Development Plan for 2017-2027 years. Understanding of the institution's mission and role in the region and in the maritime industry sector is clear enough.
- Educational program management is based on the corresponding AUMI regulatory documents. Monitoring of educational programs is carried out on an annual basis, involving applicants of education (students), employers and other groups of the parties concerned; the processes are well documented.
- The Institute has developed, implemented and maintains a quality management system in accordance with the requirements of ISO 9001: 2015.

### ***Weaknesses***

- Low involvement of internal and external stakeholders in preparation of SAR (for instance teachers/ professors were not involved).
- SWOT analysis, as a widely applied tool for strategic planning, does not provide a detailed analysis of the situation.
- The programme content does not fully reflect the requirements of the Ukrainian National Qualifications Framework prescribing competencies of the first level of higher education (bachelor's degree).
- Institutional academic culture, reflected in many aspects such as the perception of the mission of higher education, institutional dress code, knowledge of foreign languages, quality of documentation, and so on needs to be improved.
- The institute website, at the list in English, requires updating of information and revision of supporting documents.



### ***Recommendations for elimination of weaknesses and for further development***

- Recommendation to implement Ukrainian National Qualifications Framework prescriptions regarding bachelor's competencies as the ability of a person to solve complex special-purpose problems, application of certain theories and methods of relevant sciences should be visible and serve the purposes of the high school. One of the possible means for bachelors level may be, for example, preparation and public defence of graduate qualification work, in parallel to state examination.
- It is desirable to cultivate and develop institutional academic culture, understanding the importance of providing education for all levels of higher education, the focus should be not only on professional skills but also on soft skills development, encouraging staff to share appropriate attitudes and ways of behaving (for instance dress code, languages and so on).
- It is recommended to include social and economic partners in designing the programme, improving the programme, shaping learning outcomes, evaluating f competencies and other activities.
- Recommendation to update periodically the AUMI website and keep on it only actual documents and valid certificates.
- Recommendation to perform a SWOT analysis as an element of quality assuring system regularly, seeking sustainability in improving the quality of the programme.
- Recommendation to develop a set of KPI that help AUMI to periodically monitor their daily, monthly or annual activities, providing information on how AUMI reaches its goals.
- It is recommended to build an own quality system/culture designed for academic purposes. The Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) might be a good indicator/model for AUMI.

Assessment:

Excellent	Good	Average	Poor	N.r.
		X		

## **5. Structure and content of the programme**

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Studies in the bachelor study programme “Navigation” are carried out in a full-time and part-time form. Both forms of studies have developed separate study plans. Both forms are calculated for a workload of 240 credits points (ECTS). One credit point equals 30 hours of student’s work with the teacher and independently. Both forms differ in the length of delivery. The full-time studies last 3 years and 10 months while part-time studies 4 years and 6 months (9 semesters). The programme leads to the formation of a Navigation Bachelor professional degree/title.

The programme is described by the learning outcomes which should be achieved upon its completion. The full catalogue of learning outcomes is divided into 3 categories: General competencies, General professional competencies and Special (professional) competencies. All together 40 specific learning outcomes have been assumed. They are mixed and consist of knowledge and ability/skills competencies. The programme doesn't recognize any soft competencies/social competencies. Such competencies should be included in the programme at least for meeting international standards.

As stated in the SAR the main learning outcome is the shaping of skills in accordance with section A-II /1 "Mandatory minimum requirements for certification of the Master's watch officers of the ships with a gross tonnage of 500 units or more" and section A-II /2, "Mandatory minimum requirements for certification of masters and chief officers of the vessels with a gross tonnage of 500 units or more" of STCW Convention Code, 1978, as amended. This focus on STCW requirements is considered to be the weak side of the programme. It shall be noted that the STCW convention by setting minimum requirements for training, examination and certification of seafarers doesn't require for their achievements a higher level of education - academic level. Despite the fact that the programme fulfils requirements and the Standard of higher education of Ukraine in the first (bachelor) level in the speciality 271 River and marine transport (specialization - Navigation and ships' manoeuvring), approved by the order of the Ministry of education and science of Ukraine from 13.11.2018 №1239, it seemed that the programme or rather management of the AUMI, staff members and the students have been happy with the meeting and fulfilling STCW convention requirements. As stated, one should know that this is not enough for the academic level of education.

The programme consists of 38 subjects. The programme offers 4 modules of elective subjects - specializations, mainly: for professionals in navigation and industrial fishing, for marine fleet professionals of navigation and performance of bagermeister works, for navigators of marine, survey vessels and performing hydrographic works, for navigators on sea and inland waterways. The proportion between the number of compulsory and elective subjects is in accordance with the Ukrainian norms. The integral part of the programme is professional practice (54 credit points) located in semesters 6-8. In the programme, there are 2270 contact hours of teaching with the presence of teacher and student, which is a good estimation for shaping the intended learning outcomes. If we deduct practice from the overall evaluation of the programme we find that about 41% of the students' workload is spent with teachers. This calculation refers to the full-time study programme. Regarding part-time studies, only 10% of the total workload is to be delivered under teacher supervision. It seems that this factor is too small to deliver learning outcomes on the same level as in the case of full-time studies. It could be possible only when experienced students with extensive professional background undertake the programme. In fact, part-time students consist mainly of young pupils who had just completed general secondary education.

If some examples are considered like in the subject "Theory and Ship's Arrangement", there is an unusual disproportion between the school classes and self-work for an extramural form of education. There are so many essential parts of the programme which are devoted to self-learning only, 6 from 8 topics in one semester are to be learned by students alone. Among

topics for self-education we can find “Life-saving appliances. Requirements to life-saving appliances according to Marine Register and SOLAS Convention“ or “Ship’s hull construction. Ensuring the reliability of the vessel during its operation”. The assumption that such important items could be learned just by students is wrong. Any deficiencies in knowledge may also lead to degradation of the safety of life at sea. Considering the intended competencies in this particular subject in the description of knowledge can be found: 1) knowledge and ability to control draught, stability and hull stresses, to provide support for the ship in seaworthy condition; 2) knowledge of the effects of displacement, draught, trim when manoeuvring and piloting a vessel; 3) knowledge and ability to explain where to look for damages and defects, most often caused due to loading and unloading, corrosion, severe weather conditions; 4) understanding of the basic principles of the structure of the vessel, theory and factors affecting draught and stability, as well as measures taken to ensure draught and stability; 5) operational knowledge and application of information about stability and draught; 6) understanding of the main actions that should be used with partial loss of buoyancy; 7) understanding of the foundations of water tightness; 8) knowledge of fire extinguishing systems. For achieving the above knowledge competencies programme provides 60 hours of lectures in full-time form but only 6 hours in part-time. It cannot be achieved in 6 hours. Also, the disproportion in this particular form 60 to 6 is not understandable.

The detailed curriculum also contains formal mistakes (at least in the English version) which lead to misunderstanding or unclear pictures. In the mentioned subject “Theory and Ship's Arrangement” the total workload is 270 hours. AUMI wrote, “the ratio of the number of auditory classes to self and individual work is 142/128, for extramural education is 32/238”. However, studying the attached detailed table with hours gives different figures, also the general table in this subject contains different figures. It seems that AUMI lacks the experience and the academic procedures for admitting, updating and improving the educational programme.

The programme contains 54 credits of compulsory practice and additionally 24 of educational practice. The amount of practice/internship is properly estimated for achieving practical competencies. These 54 credits (so-called production practice) are obtained on the board of the river or merchant ships in accordance with the specialization, 12 weeks in the second year and 20 weeks in the third year of study. This practice is an integral component of the education process and is counted for receiving professional certificates of competency.

Upon completion of the programme, students do not prepare any thesis, comprehensive work or capstone project instead it is needed to pass the final comprehensive exam (according to Ukrainian regulations). It is held in the form of oral answers to the issues of examination cards drawn up.

### ***Strengths***

- There is a necessary quantity of elective and compulsory disciplines.
- The proportion between the elective and compulsory disciplines is in accordance with the national regulations.

- The total workload estimated in the programme is sufficient to deliver intended learning outcomes.

### ***Weaknesses***

- The main focus in the development of the study programme is on professional skills, and insufficient on the academic level.
- The unusual proportion between the contact hours and self-work for the extramural form of education, so many of essential parts of the programme are devoted for self-learning only, for instance in subject “Theory and Ship's Arrangement” 6 from 8 topics in one semester are to be learned by students alone.
- There are no soft skills/ social competencies taken into account in the programme.
- Errors in the programme (at least in English version - in samples of syllabuses presented).

### ***Recommendations for elimination of weaknesses and for further development***

- To improve theoretic components in the programme, to strengthen the academic level of AUMI.
- To add the number of school classes for extramural students especially for disciplines that are difficult to understand without lecturer support
- Improve the content of the programme by including the soft skills/ social learning outcomes.
- To elaborate the academic procedures for admitting, updating and improving the educational program.

### **Assessment:**

<b>Excellent</b>	<b>Good</b>	<b>Average</b>	<b>Poor</b>	<b>N.r.</b>
		<b>X</b>		

## **6. Teaching and learning materials**

According to the specifics of the speciality for quality study process teaching and learning materials must consist of three parts. The first is literature sources for the acquisition of theoretical knowledge, the second - materials - technical support, the third - technical means for the implementation of special courses. Materials, technical support and evaluation of technical means should be done in the resources section, but based on the specifics of the speciality, the experts dared to partially analyze these components by adding them to the teaching and learning materials.

Scientist Council approved study programs according regulation: *”Положение о формировании, утверждении и оценке образовательных программ”*. Study courses and methodical guides are considered and approved at meetings of the Department of Marine Training. The process of developing and updating the teaching and learning materials takes place in accordance with AUMI regulations. Information acquired during the remote site visit confirmed that students and teachers are involved (at least nominally) in the development of the teaching materials. For example, students can suggest topics, literature, exercises, technical solutions for new ships or teaching formats to the teachers. Teachers, after evaluating such suggestions, can further recommend corresponding revisions in the course content and materials. This approach optimizes the quality of the teaching materials and their correspondence to the needs and requirements of both students and teachers.

The self-assessment report "Educational Program" link does not provide full information about the study course descriptions of the study programme. Upon additional request, information on study courses was provided. Overall, judging from the self-assessment report and additional information provided by AUMI and acquired during the evaluation visit, the quality of teaching materials is good and corresponds to the requirements of the program. The course descriptions and other materials available to the expert group were quite structured and clear but still needs some clarifications. As a critical remark, judging from the course descriptions and additional information provided by AUMI, some of the available teaching materials are based on outdated literature. A similar situation arose with methodological recommendations. According to the self-assessment report the link to the internships (educational and production seagoing practices) description available. A link to the methodical guide is provided in the SAR. Unfortunately, this link does not provide complete information. In addition to the given information, methodological instructions were provided, such as for completing the course work. The methodological recommendations of the qualification exam reflect in detail the requirements to be set, the range of questions, and the evaluation criteria.

Bridge and engine room simulators are developed and in general meet international requirements. Software licenses such as Navi\_trainer Professional 5000 ver. 5.25 ( 2 activator keys), Engine Room Simulator ERS 4000, LCHS 5000 TechsIM, GMDSS Simulator TGS 5000 ver.8.2, GMDSS Simulator TGS 4000 ver.2.0, LCHS 2000 LCC Tanker Solo ( 2 copies), was issued 23.02.2021. For example, the Engine room simulator is used to acquire the skills of engineer and ETO for the control of various ships' machinery, to solve non-standard situations and various issues related to the control of the ships equipment. The recommended IMO model course 1.39 “Leadership and Teamwork” ( STCW 78 as amended A-II/1, A-II/2, A-II/3, A-III/1, A-III/2, A-III/3, A-III/6 ), as well as the supervising maritime education organizations, recommend to create one study course where the above-mentioned skills are acquired.

Laboratory equipment does not provide the acquisition of practical skills. An example: Electrical processes are modelled using various types of software, the operation of refrigeration equipment is modelled, and so on (as explained during the online meeting).

Special laboratories are needed (for example: for the analysis of fuel lubricants and water) because by using them the student is able to acquire the necessary knowledge and skills, which will have to be applied in daily work on ships. Posters are mostly used in classrooms. They can be used as visual aids, but unfortunately, the posters alone are not able to provide full information on the structure, design and ongoing processes of the mechanisms. The lack of different measuring instruments reduces the effectiveness of training.

The group of experts was given the opportunity to inspect the facilities in the port area where students receive practical training. This type of training model is acceptable for the partial acquisition of practical skills. While in the factory or on board, the student training process is subject to the needs of the current factory or port (ship). This means solving specific tasks. The laboratory and educational practice included and planned in the study process cannot be fully realized.

The equipment of the training centre provides training using various types of teaching aids, such as different types of fire extinguishers. Diverse emergency situations are modelled on the premises of the training centre to fight the fire. A fully equipped lifeboat provides practical training in driving a boat. Rescue suit equipment meets the requirements. The use of life rafts is also considered a necessary component for the successful conduct of the training process.

### ***Strengths***

- Teaching and learning materials mainly correspond to the achievement of the required results;
- The equipment of the training centre ensures the successful acquisition of short courses;
- Availability of premises for placement of teaching materials and creation of workshops.

### ***Weaknesses***

- There is a lack of main teaching materials for acquiring practical skills;
- Some of the available teaching materials are based on outdated literature;
- Difficult implementation of shore (educational) practice;
- Methodological guides do not fully cover all study courses.

### ***Recommendations for elimination of weaknesses and for further development***

- In order to improve the training process, it is necessary to install premises with specific (according to the profession) equipment;

- It is recommended to attract cooperation partners and sponsors for obtaining training materials;
- It is recommended to establish a system of methodological guides;
- It is recommended to establish standards for the approval of teaching literature;
- To secure a mechanism of monitoring and inclusion to the program current achievement of science and outputs of development work specific to study discipline.

**Assessment:**

Excellent	Good	Average	Poor	N.r
		X		

## 7. Techniques and methods of educational activity

As the fully independent activity of the educational institutions has started in 2020 there is no base for the teaching methods development comparison. The forms and methods actually used during the teaching processes are described in Cl. 2.3. of institution local regulation "Regulations on the organization of the educational process". For the moment they are mostly traditional, ineffective means of demonstration are used (the sets of posters, school blackboards and chalk). The grading system in accordance with ECTS requirements is applied. A 100 point grading system is in use too. Student's evaluation methods are described in the same document Cl. 2.5. Evaluation criteria are available for review on the institution website together with other didactic materials. Each subject of the educational programme consists of a list of exam questions. The coursework is planned, which provides for the implementation of the main navigation tasks. In general, the teaching methods are acceptable and ensure the learning process. Academic integrity principles set out in the SAR, Cl. 4. A program for checking works for plagiarism is recommended, a list of measures applied to the persons who violate the principles of academic integrity are indicated.

To take into account the opinions of stakeholders on the quality and content of study programs, the website provides a form, which includes a sender's address (<http://new.kmtc.com.ua>). The right to transfer students to other educational institutions, admission to study at their institute, transfer to other specialities is indicated according to Ukrainian legislation. The rules of these processes are stated in "Regulations of the organization of the educational process" Cl. 3.1 "Procedure for translation, deduction and renewal of higher education accessories". The meeting with the students was attended by some who had previously studied in other educational institutions. There are regulations for the transfer of discipline results for such students. The procedures are described thoroughly and it seems that there is no problem with practical application.

E-learning is presented on Moodle electronic platform. It is possible to contact responsible teachers via Viber directly according to teaching staff information. It is allowed to perform tasks during a job at sea. A student-centred approach is released by possibilities to choose the individual trajectory of education (as stated in Self-assessment report, Cl. 1). In case of being late for the session, the student has the right to an individual schedule of exams. According to the teaching staff information, self-passing tests for self-control are available in classrooms. The institute's website contains test tasks and methodological instructions for performing practical works. A list of recommended reading is available in the classroom's computers with access to an electronic library. The opportunity to use professional literature stored in other libraries (electronic version) is possible, but only with a personal visit.

Exchange of students or wider mobility of students doesn't exist. AUMI understanding of the importance of mobility in higher education is very restricted. According to a Self Assessment report, the meaning of mobility is reduced to transferring students from one institution to another. It is something different. Of course it is good that the Institution can acknowledge competences (credits) gained in previous education however it still should create conditions for mobility and exchange of students by signing dedicated agreements with other higher educational institutions (national and international), assuming adequate procedures, providing information etc.

### ***Strengths***

- Online/offline contact with students at sea using necessary means of modern communication.
- Possibility to access free bibliography resources from electronic sources.
- There is a possibility to adopt applicants from another institution of education taking into account the disciplines learned.
- Annual revision of programs is planned

### ***Weaknesses***

- Mostly traditional forms of education are used.
- Limited technical possibility to apply the modern forms of education.
- The library with which the institute cooperates is not focused on professional literature
- The own bibliography resources are limited.
- The form for recommendations and suggestions posted on the web site is not anonymous

### ***Recommendations for elimination of weaknesses and for further development***

- To implement modern forms and methods of education such as brainstorming, situational modelling, casing.
- To improve the presentation of educational material by using projectors, computer simulation.
- To indicate the timing of programs revision, including the teaching methods revision/updating.
- Organize an opportunity for authorized students to use professional literature remotely
- To develop syllabuses for study courses to make it easier for students to understand the course of the educational process.



- Student proposals are better to conduct in anonymous mode.
- Create conditions for mobility of students.

**Assessment:**

Excellent	Good	Average	Poor	N.r.
		X		

## 8. Teaching staff

The AUMI declared 21 teachers engaged in the delivery of the Navigation programme. Eleven of them have a PhD degree (doctor). Some of the teachers possess professional maritime qualifications. There are 3 persons holding captain's certificates (highest marine certificate), one chief officer. Professional competencies associated with the deck department (navigation) present five teachers. Taking into account the number of students, programme aim, workload it seems that the AUMI has enough staff resources allowing to deliver intended programme outcomes. However, a challenge for AUMI would be to achieve stable sustainability of the staff in a longer period of time due to the higher age of staff, especially academic/researchers. AUMI due to its rather short history depends on external sources of absorption of new teachers which might be an additional challenge. AUMI should plan to build its own work environment allowing for independent development and career of its own staff.

Qualified teaching staff main principles of attracting are the salary level and career prospects. Both of these elements are at a sufficient level for a regional city. The ratio between the pedagogical, methodical and research workload depends on the staff position and is within the generally accepted in Ukrainian educational institutions level. Pedagogical and scientific-pedagogical employees of the Institute are motivated to improve their qualification in higher educational institutions, relevant scientific, educational-scientific institutions and organizations both in Ukraine and abroad. This rule is stated in "Regulation on the organization of the pedagogical process", Cl. 3.8.2.

The ratio of academic and research load of teaching staff is determined in accordance with a scientific degree, academic rank, position, level of qualifications, work experience, participation in a methodical, scientific and other types of work and are planned by research and teaching staff with the head of the department agreement. Four types of work are distinguished: educational, methodical, scientific, mixed organizational and educational. However, teaching activities are the main activity of academic teachers. They are not obliged to do research work as AUMI is not focused on them.

Exchange of teachers, internal and external mobility of teachers is on a very low level. It almost doesn't exist. Professional engagement of staff on foreign merchant ships is not considered as mobility in academic meaning. Teaching staff is engaged in delivery of the

programme and its learning outcome. It seems to be a positive side of the AUMI, it is optimistic and is giving more for the students than modest means allow.

***Strengths***

- Some of the lecturers are professionally experienced (maritime) with certificates of proficiency.
- A sufficient part of the lecturer has experience in work at sea, part of the lecturer combines work at sea with teaching at the institute.
- An approved quality system for advanced training of scientific and pedagogical staff monitoring is acting.
- An approved for Ukraine ratio between the methodic, academic and scientific workload of teaching staff is applied.

***Weaknesses***

- Most of the lecturers are aged.
- A high turnover of staff was observed.
- The results of the research are not reflected in the scientific publications,
- The ways of rewarding successful teachers are not specified,

***Recommendations for elimination of weaknesses and for further development***

- It is recommended to increase the ratio of the own staff (not part-time employees).
- To stress the attention of staff into the research and research results.
- It is advisable to increase the proportion of young staff.
- It is desirable to apply the practice of rewarding the rating teachers (maximum number of publications per year, supervision of the student’s research, won grants, academic titles.

**Assessment:**

<b>Excellent</b>	<b>Good</b>	<b>Average</b>	<b>Poor</b>	<b>N.r.</b>
		<b>X</b>		

**10. Resources**

The AUMI sees opportunities to ensure the availability, quality and sustainability of financial resources, using three sources: students’ fees, short courses fees and crewing service inflows. Financial resources seem to provide achievement of navigation program objectives and program learning outcomes as planning is carried out prospectively, provided by the work plan of the AUMI, and adjusted at the end of each financial year. However it is obviously seen that in a longer perspective AUMI needs to ensure higher income due to imminent investment needed for improvement of infrastructure, equipment, and imminent resources

needed for development and research allocation.

AUMI is located at the centre of the city in its own building with a sufficient amount of space/premises. About 50% of premises are ready for the learning process, the rest is under reconstruction. A short distance from the AUMI there is a public library (a cooperation contract is signed) and an own training centre (smoke labyrinth, life rafts/boats handling, rigging workshop). The public library is not professionally oriented. The training centre readiness is 80-90%, some minor repairs are necessary. There are two certified bridge simulators available. Some important training equipment, like a magnetic compass with the possibility of deviation compensation, gyro and other bridge instrumentation are absent. Most of the classrooms are equipped with school boards and sets of posters, some of them are equipped with computers (old ones but in working condition). No whiteboards, no projectors for the educational materials demonstration. There is a training class for rigging. There is a small professionally-oriented library with periodicals and reference books, with several computers with direct access to the electronic library. There is an agreement with the hotel to provide housing for students in need upon request. According to the Ukrainian rules access to the stadium, sports complex and canteen is provided (the necessary contracts have been signed). For the moment access to education for people with special needs is not provided (same is necessary to arrange according to the Ukrainian rules). Well organized website of the AUMI is working, all necessary information for the applicants and students including admission rules, study programme materials, training materials, questionnaires to take into account the opinions of stakeholders etc is accessible. Modern information technologies are used, such as the Moodle platform. The sources of financing are invested capital, crewing companies donations and tuition fee. The sufficiency of funding will be clear in a year at least.

### ***Strengths***

- The AUMI owns facilities with the possibility to improve them and expand.
- Good potential for growing (own territory, own buildings, own simulators).

### ***Weaknesses***

- Unfinished reconstruction of the main part of premises.
- The lack of some important training equipment, like magnetic compass with the possibility of deviation compensation, other bridge instrumentation.
- Part of the existing facilities are ready for use, but another part still needs to be renovated. Information and communication technologies in the implementation of the study programme are outdated.

### ***Recommendations for elimination of weaknesses and for further development***

- To find sponsors, who can support significant capital investment or donate some equipment.
- To finalize premises reconstruction before the start of the school year.

- To improve the condition of the existing facilities.
- To modernize information and communication technologies.
- To organize the possibility of access to education for people with disabilities (according to the national rules the same is obligatory for each educational institution).

**Assessment:**

Excellent	Good	Average	Poor	N.r.
		X		

## 11. Research work

As the base of the institution is a vocational school and at this educational level it was not necessary to carry out the research activities, the main traditions/orientations not to be involved in the research activities are still prevailing. For AUMI at this stage, it is necessary to step up to the next level of education. Involvement in the research activities is an integral part of the 7th level of the Ukrainian Qualifications Framework. Institutions providing education at this level should be obliged to implement them and the results should be incorporated into the education program. Only in this manner, AUMI will fulfil the specificity of this level, i.e. prepare the student for solving complex special-purpose problems and practical challenges in the field of navigation, which solution involves the application of theories and methods of transportation sciences and is characterized by complexity and ambiguity of conditions related to many aspects navigation. There is not so much proof of any research activity on the institutional level and the understanding of its importance. For instance, publication as an output of researchers affiliated with AUMI does not exist. The Admiral Ushakov Maritime Institute is encouraged to undertake the proper measures in the direction of undertaking research activity.

### *Strengths*

- AUMI adopted some scientific work directions.

### *Weaknesses*

- Minimal involvement for research work from the student's side
- The quantity of scientific publications is minimal and doesn't prove the high level of the institution.
- Lack of publications affiliated with AUMI.
- No facilities or equipment for research activities were presented.

### ***Recommendations for elimination of weaknesses and for further development***

- Monitor research and development work in the area of studies on the national and international level, use the results to improve the concept and quality of education.
- It is vital to organize an incentive system to attract active researchers.
- To provide incentives for students participating in research work.
- To arrange conditions for research conducting- equipment, premises, information base, internal conferences.

#### **Assessment:**

<b>Excellent</b>	<b>Good</b>	<b>Average</b>	<b>Poor</b>	<b>N.r.</b>
			<b>X</b>	

## **9. Cooperation and internationalization**

The AUMI indicates some signs of Internationalization by establishing first contacts with foreign partners/institutions. One good example could be a membership in the International Chamber of Commerce. It is understood that due to the short history of AUMI the scope and depth of international cooperation is relatively small. It has also been relatively restricted by pandemic Covid-19 recently.

The programme is internationally recognized incorporating international standards established by the International Maritime Organization in the Convention on Standards of Training, Certification and Watchkeeping for Seafarers known as the STCW convention. The most visible side of internationalization is a professional practice that students often undertake on foreign ships. It is additionally strengthened by staff members who in many cases possess professional maritime qualifications and worldwide practice.

However, the academic level of education which AUMI provides shall be based also on academic internationalization which is not visible. AUMI is lacking cooperation with academic higher institutions, research centres and developing centres. AUMI doesn't have effective tools and mechanisms for exchanging students and teachers. The ability to communicate in foreign languages of administration, teachers and students is on a low level. Offered programmes are not based on the current achievement of science and outputs of development work. AUMI at least shall monitor activities in these areas and outputs transfer to own education.

The cooperation with the local (regional) economic environment is in quite good shape. Mainly they consist of crewing agencies, companies, training centres and public services. However, those partners shall be much more included in programme design, shaping learning

outcomes, evaluation of competencies. It shall be also developed in a formal manner (agreements, standardized communication).

***Strengths***

- Openness for participation in international programs.

***Weaknesses***

- Lack of academic internalization approach.
- Students are not involved in cooperation and internationalisation activities.

***Recommendations for elimination of weaknesses and for further development***

- Start cooperation with the national and international academic higher institutions, research centres, developing centres.
- Secure tools and mechanisms for exchanging students and teachers.
- Secure communication competencies in foreign languages of staff and students at least on level B2 of Common European Framework of Reference for Languages for internationalization purposes.

**Assessment:**

<b>Excellent</b>	<b>Good</b>	<b>Average</b>	<b>Poor</b>	<b>N.r.</b>
			<b>X</b>	

## **12. Employability of graduates**

The goals of the study programme are generally to satisfy the requirements of professional skills and educational level of the international and local labour market. Some of the graduates are employed via the crewing partners (V- Ships), some on their own. A significant part of students have their own sea experience and are employed independently after graduation from the institution. Employers are invited to submit their proposals for the training of applicants for higher education through a website.

During the accreditation visit, the expert group managed to find out that the goals of the educational program take into account regional peculiarities. In particular, the city of Kherson has access to the Black Sea, there are several seaports, which is very important in the practical training of students. Existing ports in the city of Kherson carry out constant economic activity. However, partners mainly - crewing agencies. The majority of students (approximately 90%) study part-time and are already employed in the maritime field. This indicates that students are aware of the choice of this particular educational program.

During an online meeting with employers, it was found that they are involved in the development of the educational program and have the opportunity to influence its content as needed. In particular, the amount of workload of lectures or practical classes, the scope and direction of practice, etc. Employers also stated that they hire students with a score of at least 4. However, in general, according to employers words, the level of knowledge of students/ graduates has become lower and they have to hire students/ graduates with a lower score.

In 2019, the Institute developed "Regulations on monitoring the quality of education and educational activities." This provision includes such key components as the regulatory framework, the content of stakeholder monitoring, the procedure for conducting a stakeholder survey, methods for evaluating survey results, as well as sample questionnaires for students, graduates and employers.

***Strengths***

- Communication and cooperation with employers and stakeholders is established

***Weaknesses***

- Some employers believe that the knowledge level of graduates is gradually declining (the middle point in many cases are lower 4)
- The AUMI partners are mainly crewing agencies. While maritime consists also from other actors: maritime administration, owners, shipyards were not present as partners.

***Recommendations for elimination of weaknesses and for further development***

- Develop partnerships with more different actors

Excellent	Good	Average	Poor	N.r.
	X			

**13. Student services**

The analysis of the SAR and the meeting with the students makes it possible to state that the communication between the students and the administration of the AUMI regarding the educational process takes place primarily through the education department. In particular, the training department provides up-to-date information on classes, practice, necessary documents, etc. The department of education is a place where students can resolve conflict situations, report corruption, etc. At a meeting with the AUMI administration, it was found out that the announcement of sessions and other key events, especially for part-time students,

is officially sent via mail, and modern Viber-type messengers, that are used for faster communication.

Students also have the opportunity to learn the necessary information through AUMI's website. However, an analysis of the site's pages shows that some pages need refinement. Students noted during the meeting that feedback from the institute also takes place through surveys, which are conducted approximately once a year and include questions about the educational process, practical training and the work of the AUMI as a whole.

The rights of students are protected by an established and functioning body of student self-government. For this activity, the "Regulations on student self-government" is developed and implemented.

***Strengths***

- Organizational support for students through the study department of the AUMI.
- The student government protects the rights of students.
- The administration conducts regular surveys on the content of educational programs and the quality of education.

***Weaknesses***

- Insufficient information content on the website.

***Recommendations for elimination of weaknesses and for further development***

- To develop and improve information about the educational process on the website.

<b>Excellent</b>	<b>Good</b>	<b>Average</b>	<b>Poor</b>	<b>N.r.</b>
	<b>X</b>			