



CENTRE FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

**EVALUATION REPORT OF**  
**THE FIRST CYCLE STUDY PROGRAMME**  
*SHIP TECHNICAL SYSTEMS AND COMPLEXES OPERATION*  
at Kherson State Maritime Academy,  
Ukraine

**Expert panel:**

1. Prof. Dr. Janusz Uriasz (panel chairperson), *academic,*
2. Ms. Johanne Marie Trovåg, *academic,*
3. Prof. Dr. Germàn De Melo Rodriguez, *academic,*
4. Mr. Sergiy Melnyk, *representative of social partners,*
5. Mr. Arnoldas Solovjovas, *students' representative.*

**Evaluation coordinator – Dr. Domantas Markevičius**

Report language – English

© Centre for Quality Assessment in Higher Education

## INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<b><i>Ship Technical Systems and Complexes Operation</i></b>
Study field	Sea and River Transport
Type of the study programme	University studies
Study cycle	First cycle
Study mode (length in years)	Full-time (3 years and 10 months)
Volume of the study programme in credits	240
Degree and (or) professional qualifications awarded	Bachelor in Ship Technical Systems and Complexes Operation
Date of registration of the study programme	24/06/2020

## CONTENTS

<b>1. INTRODUCTION.....</b>	<b>4</b>
1.1. Background of the evaluation process	4
1.2. Legal background	4
1.3. Additional information	5
1.4. Background of the HEI/Faculty/Study field	5
1.5. The expert panel	6
<b>2. PROGRAMME ANALYSIS .....</b>	<b>7</b>
2.1. Programme aims and learning outcomes	7
2.2. Curriculum design	9
2.3. Teaching staff	11
2.4. Facilities and learning resources	13
2.5. Study process and students' performance assessment	14
2.6. Programme management	16
<b>3. RECOMMENDATIONS .....</b>	<b>18</b>
<b>4. SUMMARY.....</b>	<b>19</b>
<b>5. GENERAL ASSESSMENT.....</b>	<b>20</b>

# 1. INTRODUCTION

## 1.1. Background of the evaluation process

The objective of this report is to present the main findings of evaluation of the first cycle study programme *Ship Technical Systems and Complexes Operation* (hereafter - the Programme) run by Kherson State Maritime Academy (hereafter - KSMA or the Academy) in Ukraine. The evaluation of the Programme was carried out on the request of KSMA. The Centre for Quality Assessment in Higher Education (hereafter - SKVC) carried out the evaluation in KSMA for the first time.

Prior to the evaluation visit, the SKVC expert panel familiarised itself with the self-evaluation report (hereafter - SER) submitted by the Academy. The expert panel also had several preparatory meetings to discuss the issues outlined in the SER, the questions to be discussed with the Academy representatives, and a detailed schedule for conducting the visitation.

The site-visit took place on 26 September 2022, and was carried out entirely remotely in accordance with the SKVC's procedure for study programme evaluation. It began with a meeting with the administration of the Academy. During the course of the site-visit, discussions were held with students, graduates, and academic staff teaching in the faculty under review, with those responsible for improving the quality of education, and with representatives of the socioeconomic environment (social partners). An assessment was also made of the facilities used for training. Before the end of the site-visit, the degree of fulfilment of the criteria was evaluated and observations were formulated, which the chair of the expert panel informed the Academy management about during the final meeting.

The Academy has been operating under extraordinarily difficult conditions in recent times - under martial law. There is a war in Ukraine and the Academy's headquarters in the city of Kherson has been under the control of the occupying forces. The academic community has no access to it. Despite the ongoing war, the Academy has not stopped its activities. The headquarters and some of its staff have been temporarily relocated from Kherson to Odessa. All education takes place online. Staff and students are located in different regions of Ukraine and abroad. The IT infrastructure required for education is located outside the country and is made available to the Academy on the basis of international cooperation agreements.

## 1.2. Legal background

The evaluation of on-going study programmes is based on the *Methodology for Evaluation of Ongoing Study Programmes of Foreign Higher Education Institutions*, approved by Order No V-7 of 20 February 2015 of the Director of SKVC.

The evaluation is intended to help higher education institutions to constantly improve their study programmes and to inform the public about the quality of studies.

The evaluation process consists of the main following stages: 1) *self-evaluation and self-evaluation report prepared by the Higher Education Institution*; 2) *site-visit of the expert panel at the HEI<sup>1</sup>*; 3) *production of the external evaluation report by the expert panel and its publication*; 4) *follow-up activities*.

On the basis of an external evaluation report of the study programme, a decision to accredit the study programme shall be taken.

### 1.3. Additional information

The Application documentation submitted by the HEI follows the outline recommended by the SKVC. Along with the self-evaluation report and annexes, the following additional documents have been provided by the HEI before, during and/or after the site-visit:

No.	Name of the document
1.	KSMA Navigation Department Student Certification Program
2.	KSMA functioning under the Martial Law
3.	KSMA International Activities 2022

### 1.4. Background of the HEI/Faculty/Study field

Kherson State Maritime Academy (KSMA) was founded in 1834 and is the oldest maritime educational institution in Ukraine. KSMA is a higher educational institution on the fourth level of accreditation that trains maritime professionals with academic degrees ranging from skilled operative, junior specialist, bachelor, specialist and master within the range of seagoing, ship building and maritime working specialties. From the establishment of the School of Merchant Shipping in 1834, via several reorganisations through the years, it became Kherson State Maritime Academy in 2011. Throughout the years, the maritime educational establishment has prepared more than 45 000 graduates, whereof more than 3 000 have been deep-sea masters.

KSMA was audited and approved by the European Maritime Safety Agency (EMSA) in April 2018 and confirmed its compliance with the global standards of education of seafarers during the audit of the International Maritime Organization (IMO) in June 2018. The KSMA quality management system is certified by the Shipping Register of Ukraine in accordance with ISO9001:2015. The academy is currently focusing on implementing the global Sustainable Development Goals.

---

<sup>1</sup> Unfortunately, the site visit had to be organized via online technologies due to force-majeure circumstances (wartime).

The Faculty of Marine Engineering provides education and training according to study programmes of Ship Technical Systems and Complexes Operation in the first level of higher education. The Ship Technical Systems and Complexes Operation study programme is a result of KSMA's long tradition of educating maritime professionals.

The current assessment of the Technical Systems and Complexes Operation study programme was initiated by the KSMA themselves, as they wanted to be revised in accordance with European standards.

### 1.5. The expert panel

The expert panel was completed according to *Description of experts' recruitment and organization of experts' work*, approved by order No. V-149 of the Director of SKVC on 31 Dec. 2019.

**Prof. Dr. Janusz Uriasz (panel chairperson)**, *Vice Rector for Innovation and Development, Maritime University of Szczecin (Poland)*;

**Ms. Johanne Marie Trovåg**, *Head of Department Nautical Science, Stord/Haugesund University College and Head of Department at the Department of Maritime Studies, Western Norway University of Applied Sciences HVL (Norway)*;

**Prof. Dr. Germà De Melo Rodriguez**, *Director of Master in Shipping Business and Law and Port Management, Department of Science and Nautical Engineering, Polytechnic University of Catalonia (Spain)*;

**Mr. Sergiy Melnyk (social partner)**, *Managing Director of ATIS Ltd (Ukraine)*;

**Mr. Arnoldas Solovjovas (student representative)**, *PhD student in Laser and Optical Engineering at Vilnius University (Lithuania)*.

## 2. PROGRAMME ANALYSIS

### 2.1. Programme aims and learning outcomes

The “Ship Technical Systems and Complexes Operations” study programme meets the need that both the Ukrainian and world merchant fleet have for Marine Engineers. It is not for nothing that Ukraine is among the top five countries that provide the most seafarers for the world merchant fleet.

In this study programme, the requirements of this engineering profession corresponding to the first cycle level of studies are reflected. Although it could be said that both the name of the programme and its learning outcomes, content and qualification are in harmony, the denomination of the academic title “Ship Technical Systems and Complexes Operations” should be more in line with the area of knowledge of the study programme (Marine Engineering), since it does not specify or focus on it, but on ship systems and complex operations that does not clearly define the content of the study programme.

In the programme’s definition section of the SER, it is established that the education and training of bachelors in marine engineering correspond to the “Ship Technical Systems and Complexes Operation” study programme. If so, there is no specific reason for calling it differently, as the denomination of marine engineering is the most specific, since it defines the area of knowledge. The current denomination refers to graduating in technical systems and ship operations, a denomination that is not typically academic and very confusing unless it is specific in Ukrainian educational area.

The objectives of the programme reach the levels of studies and qualifications offered. In the SER, a series of objectives are marked that are mostly in line with the study programme. However, there are some, such as maritime traffic control, that are not included in the study programme. In the panel’s opinion, such objectives should be removed.

The objectives of the programme are in line with the Bologna Declaration and Ukrainian university study laws, as well as the academic regulations of KSMA. In addition to the above, the objectives of the study programme were designed taking into account the labour market and its users and the competitiveness of maritime transport. It is a positive approach which should be maintained in future improvement of the study programme.

The programme aims and learning outcomes are clearly defined and publicly accessible via the KSMA website. The programme corresponds to the level 6 of the Ukrainian national qualification framework, which means that it is a bachelor programme. It is from the information the panel received on the programme and the interviews during the site-visit clear to the panel that the professional level of competence is well incorporated into the programme and clearly visible in the programme descriptions and learning outcomes. The learning outcomes and aims of the programme do however have potential for

improvement in order to clearly display that this is a national qualification framework level 6 programme, as the academic learning outcomes of the programme are hard to see in the descriptions. In the programme descriptions and learning outcomes, it is also hard to identify the bachelor level academic skills corresponding with those described in the Ukrainian national qualification framework level 6. During the site-visit, this assessment was further supported, especially related to the social competences. The committee recommends that KSMA ensure that bachelor level (level 6) outcomes are displayed in the learning outcomes for the programme.

In addition, it is indicated in the SER that in the study programme 55 learning outcomes were found that coincide with tables A-III/1, A-III/2 and A-III/3 of the STCW Convention, without indicating that these coincidences correspond to full compliance with the STCW Convention, which is the main goal for this study programme.

The fact of carrying out the study programme exclusively based on tables A-III/1, A-III/2 and A-III/3 of the STCW Code, excluding the tables of the same STCW Code A-V/1-1, 1 -2, 2, 3 and 4, and A-VI/1-1,2, 3, 4, 5 and 6, means that the students of this Degree do not complete the maritime training completely, having to pass, once the Degree is finished, by a Training Center external to the University, to complete their training.

In the optional part of the study programme there are 24 ECTS to be chosen. Programme has got a lot of international (STCW) content. However, showing benchmarking of the study programme with other studies in the maritime sector would give students a greater knowledge and the labour field that would make them be demanded even more forcefully.

According to data from EMSA, international manning companies and the interview with representatives of the Ukrainian maritime sector conducted during the site-visit, we can confirm that the study programme is in line with what is demanded by the labour market at the national and international level. The foregoing indicates that the graduates of the KSMA during their training period have acquired the knowledge and skills necessary for the attributions that their professional title will grant them.

It is observed that the study programme could have more content corresponding to the final degree project in which students are instructed in the set of elements that an engineering project must have. The main functions of an engineer are: design, operation, maintenance and others. All functions of the areas indicated before need to have knowledge of how to do a project. Academy should be aware of a need for proper evaluation of such competences. It seems, according to the SER, that the final degree project was changed for a comprehensive exam through LMS Moodle that is carried out at the end of the last semester and that is made up of questions, problems-solving, etc. of the core subjects of the career.

In the programme the subject with the greatest weight is maritime English with 17 ECTS and a total percentage of 7.08%. This indicates that the Academy pays a great importance to shape English language skills – a key skill in international shipping.



A professional practice is located in the II, V and VII semester that seems to cause a lack of continuity in the following semesters to the students, lengthening the time of completion of the Degree.

The Ship Technical Systems and Complexes Operation study programme is a degree programme, it is verified that it is dedicated exclusively to imparting knowledge and skills that grant them the corresponding attributions, in addition to preparing them to continue their studies through the Master's degree in which they will be able to develop and acquire research knowledge.

## 2.2. Curriculum design

The study programme contains 240 ECTS credits spread over 8 semesters and with a load of 30 ECTS credits for each semester. The subjects are made up of a block distributed as follows: a block called the "Normative part" contains three parts, the first is called the "General training cycle". This part contains 11 subjects with a total of 53 ECTS credits and a weight of 22.1% of the total Degree. The second part called "Professional training cycle" contains 127 ECTS credits with a total weight of 52.9% of the Degree. Moreover, the third part is the optional part that contains a total of 60 ECTS credits, in which only 36 credits of the subjects Laboratory workshop "Virtual Engine Room", Laboratory workshop "High voltage Ship Equipment" are specified. "Shipboard Practice" and "Industrial Practices" the rest of the electives are chosen from a catalogue of disciplines.

However, the fact that in the SER they indicate that the study programme is in accordance with the Bologna Declaration, this indicates, for higher education, that the subjects form three blocks such as: basic subjects, compulsory subjects and elective subjects, and in some cases subjects of free choice. In this case, the denomination of "Normative Part" divided into general and professional does not seem to fit sufficiently with the Bologna Declaration. Since it denominates basic subjects to those that will be needed for the study of the compulsory subjects and in this case within the general subjects there are some that are not supported by the so-called professional subjects.

Notwithstanding the foregoing, we can affirm that this study programme is focused on theoretical and professional training at the first degree university level. It should be noted that the professional training of this Degree, when adapted to the STCW Convention, has a professional load of more than 50% of the total ECTS credits.

Regarding ECTS credits, it indicates that each credit is equivalent to 30 hours, of which 16 correspond to face-to-face classes and 14 to individual study. Examining each subject, it is verified that almost all of them are equivalent to 12 hours of face-to-face classes and 18 hours of individual study.

Regarding the evaluation of the subjects, what the SER calls “final control form” there is no general criterion, since each subject has a different form of evaluation, such as exam, credit, calculation and graphic work.

Regarding Assessment criteria, there are three different models of evaluation of the subjects, which have no relationship, creating a certain imbalance in the final evaluation of the study programme:

- Assessment of applicants' knowledge is carried out in accordance with the criteria for assessing academic achievement in the credit-module system of the educational process.
- The test of expected knowledge and skills is carried out through an oral examination and test control of knowledge, during which the applicant will have to demonstrate knowledge of theoretical aspects discussed in the course, as well as their application to simple situations that are possible during everyday issues.
- The sum of points accumulated by the applicant for higher education for all types of current educational tasks (works) in practical (seminar) classes and the final modular control, indicates the degree of mastery of the program of the discipline at a particular stage of its study. During the semester, students can score from 0 to 100 points, which are translated into the national assessment scale and the ECTS scale, respectively. The number of points corresponds to a certain level of mastering the discipline.

Of the 33 subjects that make up the normative or compulsory part, there are three that have no relationship with the learning outcomes of the study programme but still are essential for shaping of soft skills mainly: Ukrainian Language; History and Culture of Ukraine, and Philosophy.

The names of some subjects do not clearly reflect their content, e.g. in the subject “Safety of Life”, it should be specified that this safety of life is on board a ship, that is, at sea, which is very different than in a land company, therefore, its name should be “Safety of Life at Sea”. Also, there are other subjects whose name does not accurately express the subject to be taught, e.g., “Ecology and environmental protection” - this subject refers to the protection of the marine environment and that is not reflected in its title.

In the subject “Basic Safety and Labour Protection On Board” the objectives of the subject are not related to the learning outcomes. In addition, content is repeated with the subject “Ecology and Environmental Protection”.

The subject “Safety of Life” includes the contents of tables A-VI/1, 2, 3 and 4 and this knowledge is not recognized by issuing the corresponding certificate of sufficiency for each course. The aforementioned certificates must be obtained after finishing the Degree in a training center outside the KSMA.

In the SER, KSMA indicates that the study programme has been carried out in compliance with the STCW Convention with the contents of tables A-III/1, 2 and 3, of the Code, however, the subject “Safety of Life” includes the contents of table A-VI/1, 2, 3 and 4 of chapter 6 of the STCW Code.

In the subject “Conventions and Regulations of the International Maritime Organization”, three of four international Conventions are explained, three are corresponding to the International Maritime Organization, IMO, Maritime Pollution Convention, MARPOL, is already explained in another subject, with which it is repeated. The fourth Convention is the Maritime Labour Convention, MLC which is not from the IMO but from the ILO.

The name of the subject “Materials Sciences and Technology of Materials” should be changed to “Sciences and Technologies of Materials”. This denomination is more academic.

This study programme should have a subject on engineering projects, since one of the functions that these graduates will commonly carry out will be carrying out engineering projects and the lack of a subject that teaches students to carry out engineering projects can harm the quality of the study programme and reduce the knowledge of the students.

Nor is there any quality management subject, knowledge of which is of great importance for future engineers. This subject could be included in the optional subjects.

In relation to the English subject that occupies an important part of the normative subjects, it could be questioned whether the English language, necessary for the professional development of engineering, needs to occupy such a huge amount of programme’s volume (17 ECTS). Instead, given the need for students to have a high knowledge of English, it could be proposed that the so-called professional subjects could be taught in the English language.

Lastly, it can be affirmed that the number of subjects, their content, assumed volume, and the technological update of the study programme, give the graduates the knowledge, skills, and competences in accordance with the Bachelor's degree obtained.

However, as already mentioned, there is no clear identification between the name of the title and the profession to be developed.

The disciplinary and academic competencies are completed in the study plan. However, the professional skills that describe the skills and actions to be developed by these graduates in the world of work should be more complete and developed.

### **2.3. Teaching staff**

The number of teachers at the Faculty is 73. The teaching staff must be in possession of academic and professional qualifications and have experience in the maritime sector.

Professors are chosen according to the national regulations for university education and are contracted for a period of 1, 3 or 5 years. The criteria of selection of academic staff are transparent. Academy is looking for their compliance with licensing requirements, i.e.: the presence of a degree and / or academic title, experience of research and teaching, practical experience in the field, activity in research of study field.

The same subject can be taught by several professors, which, according to the SER, ensures a high quality of the content of the discipline, allows paying more attention to the individual work of the students and implementing progressive teaching methods in the educational process to achieve the programme learning outcomes. However, the foregoing is not supported by any academic study and in the opinion of the panel the fact that several teachers share the same subject could also create greater confusion and lack of uniformity in the teaching of the contents and final evaluation of the subject for the student.

The category of teacher is divided into four levels as follows:

- Professor
- Associate teacher
- Senior teacher
- Assistant/Teacher

In the academic year 2020/21, there were 10 professors (13.70%), 27 Associate professors (36.99%), 23 Senior Lecturers (31.51%) and 13 Assistant/Teacher (17.81%). Of all of them, 10 have the title of doctor of science, 8 have the title of professor, 43 have the title of PhD and 35 have the title of associate professor.

Only five of the total teachers also have the professional title of Marine Chief Engineer Officer. The STCW Convention in its rule I/6 of the STCW Convention and in section A-I/6 of the STCW Code establish that teachers who teach professional subjects should have been trained in those subjects and have sufficient professional qualifications to impart this knowledge.

Academic teachers of KSMA, in general, combine their work as teachers at the KSMA with other work in maritime companies, which gives them a bonus of up-to-date knowledge of the maritime industry.

The study programme complies with the current regulations of higher education in Ukraine. It also does not comply with relevant parts of the STCW Convention. There are five teachers who meet the requirements of STCW Convention.

The Academy is advised to ensure sustainability of academic staff in a long period of time and focus on staff having both highest maritime competences and scientific degrees.

In relation to the average age of teachers, 58 years, it indicates that there is not a good project for the non-traumatic renewal of teachers, since, when the group of older teachers retires, they can create a significant gap of quality teachers that makes it decrease drastically.

Table 5 of the SER indicates the average age of the teachers, and only teachers, associate teachers and senior teachers and chief engineers are taken into account, a total of 39. However, assistants/teachers are not taken into account, which is still strange, since in previous pages of the SER, assistants/teachers are included within the group of teachers.

Regarding the teaching, methodological, scientific and planning load, it can be affirmed that the teaching quality standards of higher education are met.

As far as the continuous training of teachers is concerned, this is carried out through agreements with other universities and its continuous training center in the science park. It is observed that teachers are actively undergoing continuous training, not only to comply with current regulations, but also to update their knowledge.

For the rejuvenation of the teaching staff and the completion of higher education of the teaching staff, completing the third academic degree or doctorate, the SER establishes that the KSMA established a plan for it. This plan does not appear in the SER, so it cannot be taken into account or considered.

Some professors belong to international maritime associations, and have presented their research at conferences and scientific publications.

## **2.4. Facilities and learning resources**

Since March 3, 2022, Kherson State Maritime Academy has been captured by the occupation forces of the Russian Federation. The Academy continues providing educational services and plans to return to their usual location in the future.

In Kherson, the premises for studies are adequate both in their size (11.5 m<sup>2</sup> per student) and quality. Educational premises at the Faculty of Marine Engineering are in educational buildings 1, 2, 3, 6.

The educational and training complex includes high-quality laboratories, simulators and classrooms: "Full functioning engine room simulator" – engine room simulator Transas ERS 5000 TechSim, laboratory of "Ship High Voltage Equipment" , laboratory "Ship Power Plants", "Ship Repair", "Ship Refrigeration Plant", "Ship Auxiliary Mechanisms", "Automated Control Systems of Diesel Engines and Auxiliary Mechanisms", "Physics", "Material Science and Technology of Materials", "Polymer Composite Materials in Shipbuilding", "Theoretic Mechanics", "Applied Mechanics", "Descriptive Geometry and Computer Graphics", "Electrotechnics, Ship Electronics and Automated Electric Drive", "Elements and Functional Devices of Ship Automatics", "Ship Electrical Machines", "Technology of Electric Installation Work".

With the help and support of "Marlow Navigation" company, the Academy has created a training laboratory on the basis of a modern ship "WARNOW JUPITER". On the specified vessel students not only undergo industrial practice but also have an opportunity to combine theoretical and practical preparation. In turn, teachers can improve the content of their working curricula in professional disciplines, taking into account the research of the training laboratory of the ship and the requirements of the employer. In general, KSMA has sea practice agreements with more than 35 shipping companies. Even in the current situation, it has now become possible for maritime students to cross borders in order to

attend on board practice. This contributes to the KSMA ensuring that the practical training on board can be conducted as planned.

Total library collection is 329,109 units. The fund of the library is described in 8 alphabetic catalogues, 12 systematic catalogues of articles, topical card index and local informational card index.

Since April 2022, the administration of KSMA has been temporarily relocated (according to the Order No. 376 of the Ministry of Education and Science of Ukraine, issued on April 21, 2022) to Odessa, Kanatna str. 99, where it was given one floor of the Odessa State Agrarian University building with all the required equipment. Currently, the educational process is completely conducted online using the Moodle Platform, Zoom, YouTube, different Cloud Simulators (Transas), Ocean Learning Platform (CBT). The Moodle Platform (as current main facility) contains all information about work and contacts of administrative staff, study timetable, package of disciplines with lecture materials, tasks for practical work and tests, all necessary methodical materials, recommendations for practical classes, individual study and syllabi of disciplines. All completed tasks are posted on the student's own account at Moodle.

Partnering with Plymouth University and especially Lithuanian Maritime Academy provides an opportunity to improve online resources, high-quality practical skills and obtain all necessary certificates, including Certificate of Competency.

The educational programme of the Faculty of Marine Engineering was adjusted for online education. Offline simulators and labs were substituted with extra practical work on cloud-based simulators.

Academy plans to grant 24/7 access for students to all online facilities/cloud-based simulators.

KSMA does its best to implement the latest online education facilities that are available worldwide.

In the future, when the Academy will return to Kherson, combining online and offline education facilities will significantly improve the education process and increase the skills and competences of students.

## **2.5. Study process and students' performance assessment**

Based on the provided SER document and the meetings with the stakeholders, the experts panel formed a clear understanding of the current situation of the KSMA regarding the admission process. In the SER, the expert panel found a Table No. 6 with the information of entrants number for the study programme. Comparing the admission numbers for the 2016<sup>th</sup> and 2020<sup>th</sup> years, we see an increase of 7.6 % in the number of entrants who choose this study programme as a first or second priority. Out of all entrants, more than half of

them choose this programme as a first or second priority. During the meeting with students, it was highlighted that KSMA as an institution has a great reputational status in the region. This is clearly proved by the number of applicants each year. During the meeting with the students, it was said that the diploma granted by KSMA opens many doors to the private sector in the country or abroad. The admission process is done according to the national regulations and sets concrete national exams (English language, Ukraine language, Physics, Maths) as a prerequisite for the entrants. The expert panel noticed quite a huge contest for the state-funded study programme places. During the meeting with the senior administration, it was mentioned that the study programme has ~35 % of state-funded places.

According to the SER, study curriculum is developed on the basis of study programme and approved by the council of the KSMA. It is possible to introduce a new course, but it must follow the inner quality assurance regulations and mainly correspond to the content of the requirements of the study programme field. The content of study modules is regularly reviewed and if needed renewed based on the received feedback from the stakeholders. The study module class is held according to the schedule of the educational process. The content of training must fulfil the requirements of the state and labour market demands.

During the meeting with the teaching staff, it was explained that under the current situation in the country the only way to continue the study process is in a remote regime. Study models in most cases consist of theoretical lectures and practical laboratory works (training simulators). The lectures are provided through the Zoom system, also LMS Moodle is used in the study process. The practical laboratory works are currently done with the help of virtual simulation software programmes. During the meeting with the students, it was approved that all of the lectures are organized in a Zoom platform. The Moodle system becomes a tool for doing and submitting exercises. Teachers provide a lot of videos of the practical exercises that in many cases they film on their own. Students are very grateful for the effort of teachers under these harsh conditions. Of course, they would like to try the experimental equipment on their own, but they understand it is the best solution for the current situation in Ukraine. The students seem to be very grateful to be a part of KSMA: they can always get in touch with teachers when needed regarding the subject information. The KSMA administration is very helpful under these harsh conditions in the country as many students had to move away from their hometown of Kherson. KSMA provides a psychological service for the academic community. The experts were interested to find out whether or not the students have to wait in long queues to get help from the psychologists. The students explained that it will take only a few days from the registration till the services are provided. Experts see this as a huge benefit, knowing that during these unpeaceful conditions in the country many youngsters might face psychological difficulties. Experts also found a great example of social support inside the admission process. During the meeting with administration, it was mentioned that annually 10-20 students that come from families with financial difficulties receive financial support from social partners. This is a great example of aiming for a global issue of the social dimension.

Based on the SER annexes, the expert panel could notice that in most of the study modules teachers apply a points accumulation system. This system allows not only to evaluate the students' learning process at the end of the semester but also lets teachers provide feedback during the semester based on their learning progress. From the sessions with students and teaching staff, the expert panel could slightly feel a sense of student-centeredness in the teaching and learning process. Students expressed that during the theoretical lectures teachers try to involve them in active discussions, group work, etc. Students mentioned that the evaluation process in the study modules is always presented and the assessment criteria are very clear.

In the SER document, the experts were presented with a table of students' scientific topics/research throughout the years. The administration clearly defined that KSMA sees their study programmes as professionally oriented, so less attention is paid to scientific issues. Meeting with the students, unfortunately, could not answer the question of whether or not teachers try to encourage their scientific interest in a research topic. In other words, it was quite unclear whether the scientific topics presented in the SER are the result of individual students' eagerness for doing research or is it rather a result based on teachers' efforts.

Although KSMA has a huge number of foreign institutional partners, during the site-visit it was explained that the number of students who participate in the mobility program is very low. The experts are aware of the reasons for the current time, yet again this topic should be discussed in the KSMA governing bodies and actions should be taken in the future. The KSMA always remains in close relationship with its social partners and it results in the newly established equipment in the laboratories. Based on the SER Table No. 10 we see that on average more than 50% of the graduates become employed after their studies, while the rest continue their studies in the second cycle. The KSMA explained that most of their graduates successfully work in the shipping and infrastructure companies, state and municipal institutions. If there is a need to upgrade their competencies, KSMA and private companies encourage graduates to continue studies in the master's programmes. Social partners mentioned that they are aware of the study modules taught in the study programme framework and they believe that it provides all the necessary skills needed in the current private sector nowadays.

## **2.6. Programme management**

Despite the Martial Law imposed in Ukraine and the critical situation in Kherson, Kherson State Maritime Academy is functioning.

The Academy was temporarily moved to the city of Odessa. The offices of the rector and administration are located in the premises of the Odessa State Agricultural University. Respective departments of Quality Monitoring and Education Management, the Department of Information Support of the Educational Process, the Educational and



Methodological Department were also moved to the new location. It must be said that the Academy and all bodies work in exceptional conditions in online/remote mode. Even under these challenging conditions, The Academy is able to fulfil its mission at the right level.

Responsibilities and decision-making are clearly distributed in the Academy. They are formally defined in the Academy's bylaws. They meet the requirements set by the Ministry of Education and Science of Ukraine. The Academy has adopted a set of internal regulations for the proper management and implementation of the programme. These are:

- Regulations on the Internal Quality Assurance System at Kherson State Maritime Academy, approved by the Academic Council of KSMA (27. 09. 2018);
- Guidelines for the Quality of Education at KSMA (23.07.2018);
- Procedure Consumer Satisfaction Assessment approved by the order of the rector of KSMA;
- Code of Corporate Culture and Academic Integrity at KSMA;
- Regulations on Academic Integrity and Ethics of Academic Relations at KSMA;
- Procedure for Ensuring Information Support of Academic Integrity in the Educational and Scientific Process at KSMA;
- Anti-plagiarism regulation.

The Academy organises the educational process and ensures its proper implementation at the faculty level. These duties are assigned to the Dean who leads the Faculty. For admission purposes, the Academy has established the Admissions Committee, which is responsible for the acceptance and enrolment of students. The study programme is under the care of a specific person - the so-called guarantor of the study programme. This person heads the Action Group, which ensures the implementation of the programme and is concerned with the improvement of the programme and the achievement of programme outcomes. The group includes representatives of various stakeholders, including employers and students. However, there is a noticeable lack of social partners from the Academy's nearest region. It is recommended that these representatives also be included in the cooperation.

The results of the programme evaluation are presented annually to the Dean of the Faculty and the Faculty Council. The management of the programme, including the division of responsibilities and adopted procedures and practises, ensures the proper implementation of the educational programme.

### 3. RECOMMENDATIONS

1. The Academy should ensure clear correspondence between national qualification framework level 6 and the learning outcomes of the programme.
2. The content of the programme should be fully coherent with its title.
3. All assumed objectives should be reviewed in order to be in line with the study programme.
4. Subjects corresponding to the final degree should be more correlated with main functions of a marine engineer.
5. Study programme should be well benchmarked with other study programmes in the maritime sector.
6. Students should be involved more actively in all aspects of the teaching and learning process.
7. KSMA should work on inclusion of representatives of social partners from the region in order to strengthen the management of the programme.
8. After the stabilisation in the country, the KSMA should reconsider ways for the improvement of the academic mobility for students and teachers in foreign institutions.

## 4. SUMMARY

The objective of this report is to present the results of evaluation of the “Ship Technical Systems and Complexes Operation” study programme provided by the Kherson State Maritime Academy.

It must be strongly underlined that the Academy has been operating in extremely extraordinarily difficult situations in recent times - under martial law in ongoing real war. It has affected all aspects of the Academy’s activity starting from students' life and ending in complete geographical spread of stakeholders and loss of primary infrastructure. Despite all adversities, the Academy did not stop its activities. Academy has been able to provide continuous education. All education takes place online.

The KSMA was visited remotely on 26 of September 2022 by an evaluation team. Programme is delivered by the Faculty of Marine Engineering. Final grades were given based on review of self-evaluation report, online meeting and discussions with: Senior management and Faculty administration staff, authors of the Self Evaluation Report, Teachers, Students, Alumni, Employers, Social partners and finally after assessment of learning resources and available facilities. The Academy offered comprehensive support for the visiting team, allowing members to find real and objective results of its condition. General picture of the Faculty of Marine Engineering and Ship Technical Systems and Complexes Operation programme is positive. To summarise the mission, programme and curriculum were properly assumed. It has been assessed that the programme curriculum allows achievement of learning outcomes. Links between learning outcomes and academic subjects are well presented and correspond to the learning aims. However, some recommendations to the study programme and curriculum design were formulated. The Academy is advised to ensure sustainability of academic staff in a long period of time and focus on staff having both highest maritime competences and scientific degrees. Students are even more motivated for learning despite actual dispersion around Ukraine and abroad. The Academy has implemented a quality management system which supports management of the programme on a good level. Academy is aware about its present status having in mind war circumstances and has clear plans for the future. Recommendations provided in this report should help to obtain and sustain a proper level of education.

## 5. GENERAL ASSESSMENT

The study programme *Ship Technical Systems and Complexes Operation* at Kherson State Maritime Academy is given **positive** evaluation.

*Study programme assessment in points by evaluation areas.*

No	Evaluation Area	Evaluation of an area in points*
1.	Programme aims and learning outcomes	2
2.	Curriculum design	3
3.	Teaching staff	3
4.	Facilities and learning resources	3
5.	Study process and students' performance assessment	3
6.	Programme management	3
	<b>Total:</b>	<b>17</b>

\*1 (unsatisfactory) - there are essential shortcomings that must be eliminated;

2 (satisfactory) - meets the established minimum requirements, needs improvement;

3 (good) - the field develops systematically, has distinctive features;

4 (very good) - the field is exceptionally good.

Expert Panel's chairperson:

Prof. Dr. Janusz Uriasz

Expert Panel's members:

Ms. Johanne Marie Trovåg

Prof. Dr. Germàn De Melo Rodriguez

Mr. Sergiy Melnyk

Mr. Arnoldas Solovjovas