



agency for science and higher education

RE-ACCREDITATION OF MARITIME DEPARTMENT UNIVERSITY OF DUBROVNIK

The University of Dubrovnik Maritime Department

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COMPOSITION OF THE EXPERT PANEL

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INTRODUCTION

Short Description of the Evaluated Institution

The Maritime College Dubrovnik was founded in 1959 when the Nautical Department was opened. On 9th July 1984 a decision was brought to merge Maritime Colleges in Dubrovnik and in Split into one organisation under the title Centre of Maritime Studies with the headquarters in Dubrovnik. The institution later became the Maritime Faculty of Dubrovnik.

Development of the Faculty progressed gradually, new and experienced teachers were employed as well as younger graduates, new departments were opened, including the Department of Marine Electrical Engineering and Electronics in 1992.

On 12th December 1996 the Croatian Government brought the decision on founding the Polytechnic of Dubrovnik. That was the first public polytechnic in Croatia instituted on the foundations of higher education of seafarers in Dubrovnik, which started in 1959 with establishment of the Maritime College of Dubrovnik and then Maritime Faculty to finally evolve into a modern Polytechnic.

In the academic year 2004/2005 the University of Dubrovnik instituted the Maritime Department enrolling first undergraduate students of Nautical, Marine Engineering and Yacht and Marina Technologies Studies.

The Maritime Department offers 3 undergraduate university study programmes:

- 1) Maritime Technologies of Yachts and Marinas
- 2) Nautical Studies
- 3) Marine Engineering

and one graduate university study programme in Maritime Studies.

The Work of the Expert Panel

For its work the panel drew upon the self-evaluation report, prepared by the Maritime department of the University of Dubrovnik. They carried out a site visit to the campus of the Faculty on 25 and 26 May 2012. During the visit the held meetings with the following groups:

- Management (Rector, Vice-Rectors for Science and Technology, Studies and QA, International Cooperation and Head of Department)
- The Self-Evaluation Group and the QA Committee
- Teachers
- Teaching assistants and junior researchers
- Students

They also examined the facilities and classrooms at the Dubrovnik campus and visited a few classes, in one of which they held a brief question and answer session with the students. Moreover, the training vessel of University of Dubrovnik - Naše More was visited and examined as well.

DETAILED ANALYSIS BASED ON STANDARDS AND CRITERIA FOR RE-ACCREDITATION

1. Management of the Higher Education Institution and Quality Assurance

- 1.1 The vision of the institution is the following: “Maritime Department at the University of Dubrovnik will develop into the centre for higher education, research and professional training and education of future ship officers of the highest ranks, in compliance with international requirements. The highest quality education process is to be based on life-long learning involving rational



perusal of all material and human resources and continuous improvement of the teaching staff qualities (competitiveness)."

The institution has a strategy and involves stakeholders in strategic planning, however, this is not fully formalized.

- 1.2 The institution has organizational structures and it is formalized.
- 1.3 The Maritime Department, as part of the integrated University of Dubrovnik, is fully in line with the university strategy. The strategic goal of the University is to build a strong regional university, recognisable in Europe in chosen scientific and artistic fields. This will be achieved by improving the quality of research, teaching and professional activities through performance of national and international research projects, opening of new study programmes adjusted to new social circumstances and reaching excellence in research and reputation.
- 1.4 All study programs are fully in line with the university mission. However, the department needs to promote them to the labour market.
- 1.5 The department established new study programs which are fitting to the Croatian Qualification Framework.
- 1.6 The institution has developed a system of quality assurance which seems to work effectively. There is the Quality Assurance Committee founded by the Senate, Vice-Rector for Studies and Quality Management and Rector's assistant in charge of quality assurance. The system should be fully developed as soon as possible.
- 1.7 The institution has partly implemented the formal mechanisms for improvement and monitoring of the teaching quality. The system should be developed as soon as possible including subsystems of motivation and regular evaluation.
- 1.8 The institution has only partly implemented a formal mechanism to monitor and certainly improve the overall research quality. This is also recognized when talking to the teachers and senior management. The number of scientific projects and publications should be increased, and a monitoring system would certainly help. Although the institution has an award system for students, it does not have such a system for teachers.
- 1.9 This is partly implemented. The University established ethical council, but without any records for maritime department. There are no demands to the council for support or assessment of research projects, nor to declare behaviour of teachers. There is no rule to promote research. One teacher said that they had some talks about awards for research but with no final agreement.



- 1.10 This is partly implemented. Students informed us that they did know that ethical council and rules existed but that they didn't know what was said in them. It is advised to introduce students with ethical behaviour rules in order to avoid misunderstandings between teachers and students.

2. Study Programmes

- 2.1 The institution takes into account the data provided by the Croatian Employment Service, they contact the stakeholders, and their students are employable. Department has good and regular contacts with alumni but they should be formally established. The institution should regularly collect statistics about the involvement of the alumni in employing graduates.
- 2.2 The enrolment quotas are partly in line with the institutional resources for quality teaching and the analyses of pass rate. According to the statistics stated in the Self-evaluation, it is obvious that number of unemployed ex-students is low. According to the statistics stated in the Self-evaluation about the number of teachers and ratio teacher-students, it is obvious that the overload of the teachers is big. We advise the Ministry of Science, Education and Sports to permit employment of new teachers in order to improve quality of studying. Although the policy of the Ministry reduces new employments in public sector, investment in teachers should be encouraged, especially for the universities and faculties which produce students who can be self-employed. According to the Self-evaluation, the pass rate is not high. It is not recommended to calculate pass rate as dynamic cumulative. This method is good at showing a better pass rate but it is not realistic. University should do some actions in order to improve pass rate.
- 2.3 The institution is aware of the need to develop some learning outcomes, but they have just started implementing them. This should be developed in the future.
- 2.4 We have been informed by the teachers that they assess the student learning outcomes. At the beginning of semester, all teachers have to inform the students about the manner and intensity of continued assessment of learning outcomes, grading system and relevant overall results. They are aligned with the stated learning outcomes so this is mostly implemented.
- 2.5 Allocation of ECTS is not realistic. Following the conversations with students, it was found out that some of subjects were overpriced and some of them lower



than they should be. Students are considered as overloaded with lessons and subjects with bad allocations of ECTS points. It is advised to update study programmes in order to renew them and to provide better allocations of ECTS points and reduce the workload of students.

- 2.6 The content and the quality of the study program conforms to the internationally recognized standards. However, it is difficult to say whether this statement can be applied for each study programme, therefore we rate this as mostly implemented.
- 2.7 This is partly implemented. There is no appropriate teaching strategy. Teaching strategies are good, but old fashioned. There is no full mission simulator. The exams should be organized in labs and simulators. However, there are some teaching materials on the web that are not reviewed. There are three or more mid-exams for some subjects. Students must also attend classes in those weeks. That is too much work for the students since they must study for the exams and follow the lectures at the same time.
- 2.8 All teachers were obliged to put material online, and the students confirmed they have materials and software available. The new, well equipped building much improved this situation.
- 2.9 Students have the opportunity to reinforce and apply their learning in the context of practical applications. Field classes are mostly professional excursions and visits to shipyards, ships calling the port of Gruž and Ploče, visits to shipping company *Atlantska plovidba d.d.* Dubrovnik, *ACI Marina Komolac* and other subjects from the shipping industry. But as is usually the case, more can always be done. Hence we rated this criterion as mostly implemented.
- 2.10 The institution has defined and adopted formal processes by which new study programmes are proposed, approved and implemented. This is done through self-evaluation and also includes other stakeholders. We foresee no particular problems, but as is usually the case, more can always be done. Hence we rated this criterion as mostly implemented, and suggest including more different stakeholders.



3. Students

- 3.1 Self-evaluation documents stated that the presentations of the Maritime Department are held on local radio stations, frequent visits to high schools in the County are arranged, and at least once a year there are targeted presentations of the Maritime Department held at its own premises. No complaints were made by the students on the availability of information about the level of study programmes, ethical behaviour and teachers' qualifications.
- 3.2 The department does collect data on the effectiveness of admission criteria and makes regular analyses.
- 3.3 The department has introduced additional courses, regarding STCW Convention, for students from all high schools
- 3.4 The institution supports students in their extracurricular activities. There are only sports activities on the university level. Student budget is only 1% of the university budget which is not enough to organize some extra activities.
- 3.5 The students seem very content with the availability of professors and mentors, and there are no problems with external teachers, which were dealt with by the management. The department has a career counselling available at the institution.
- 3.6 There are no student dormitories in Dubrovnik and Student Centre Dubrovnik assists students to find accommodation due to an extensive data base on private accommodation. The institution is not responsible for the student standard, which is within national and university competences, and this criterion is thus not applicable.
- 3.7 The university requires contributions of approximately 1 percent to the Student Union and students are informed on how these are invested.
- 3.8 The institution publishes its methods and procedures for student assessment and uses various methods for student monitoring. They include feedback by the teacher aimed at improving student knowledge and offer students possibility of appeal. Department is part of the university and they are limited in hiring new assistants and professors. There is not enough qualified personnel to ensure adequate monitoring and ensure feedback. Also the management of the department requires the teaching assistants to have a master level, and that prevents hiring of young personnel.



- 3.9 The institution does not keep statistics on graduate employability, but only uses the national ones. This should be improved with the new information system and developed as soon as possible.
- 3.10 In 2007 the University founded UNIDU ALUMNI club, without membership fees. There are currently about 200 members. There are many informal connections with alumni and cooperation with their organizations is successful.
- 3.11 The students are represented in the institutional decision-making bodies (the Senate, department councils and the University Council) and they do have the opportunity to influence the decisions but they are not very active. These procedures should be formalised in order to be able to provide evidence and feedback on the changes implemented on the students' request.
- 3.12 Students arrive at the university and the department mostly on the basis of friends or family recommendations. The department should do more to promote itself in the media as a professional centre of excellence, within the University and towards the stakeholders.
- 3.13 Students can express their opinions on regular basis through student surveys at the end of each semester. Students feel there are few changes implemented on the basis of their opinions. Teachers and the management have confirmed this.
- 3.14 The students are informed about the measures implemented on the basis of their suggestions and opinions. There were some suggestions but management didn't do anything to even review them. Students should be more involved and stimulate management to work with the students and their representatives.

4. Teachers

- 4.1. The department is in need of new, professional staff, and currently forced to rely overtly on external teachers. The main problem for employing the new, staff with maritime experience is the HE educational system which impacts the employment of teachers and the value of the salary.
- 4.2. The institution has analysed its needs for growth and development of human resources, and is well aware of them.
- 4.3. The institution partly demonstrates the employment of new professors to ensure quality and reduce overload. There is no new employment because of the policy on the national level, but overload should be reduced either by employing external teachers or by reducing the number of students or programmes.



- 4.4. The institution has a large number of lecturers inherited from the times when they were a college, and they are investing and will need to continue investing significant efforts to employ and train a sufficient number of academic teachers. There is no evaluation among the teachers themselves.
- 4.5. The procedure for teachers' advancement should be further developed at the university level and their effectiveness analysed, as the department management is aware. Teachers should pay more attention to didactical education, science researches and international mobility.
- 4.6. The procedure for teachers' advancement is fully regulated at the national level and cannot be influenced by the department, which duly implements the national regulations. The faculty has additional criteria above the minimal requirements regarding the international projects and publications.
- 4.7. The teachers have heavy workloads, and hope this would change in the future, with the new employment and new facilities, which will make their work easier. The problem should be regulated at the national level. .
- 4.8. The institution takes care that its teachers hold substantial commitment to their teaching and research responsibilities and provide a high level of didactic lectures and exercises.

5. Scientific and Professional Activity

- 5.1. The institution monitors quantitative indicators of research productivity, there are few financial awards for successful research, and a research strategy is still being developed. The system of quantitative indicators is not fully clear and only partly conforms to the international standards.
- 5.2. Research cooperation with other institutions and stakeholders is done well, however, primarily on an individual basis, and not at the institutional level. The institution should improve the international cooperation like European projects or bilateral ones.
- 5.3. The institution pays attention to research but the situation should be improved in the future if it manages to get international, bilateral or commercial funding.
- 5.4. The institution pays strong attention to supporting young researchers. However, there are not any quantitative indicators to award them.
- 5.5. The teachers as well as Ph.D. students are not encouraged to publish papers in foreign journals (most of the published papers are in Croatian journals). There



are no substantial research facilities or research projects which promote the research excellence.

- 5.6. There is no encouragement to publication at all. There should be some sort of an award for teachers or assistants as well as upon publishing the papers in journals.
- 5.7. All evidence of scientific productivity should be included in the CROSBİ database. This includes diploma works, patents, etc....
- 5.8. The institution uses open source software which could help it to cut the research costs, and has formal strategy of technology transfer, although little of it exists in practice.

6. International Cooperation and Mobility

- 6.1 The institution facilitates and promotes mobility of students from other higher education institutions. There are some activities to host some foreign students, but there are no adequate curricula organized for them. The institution will have to organise subjects in English, separate from Croatian students.
- 6.2 The students have opportunities for international mobility via Erasmus, however, they are not interested in these and none of them have used them. Both the department and the management of the university should do more in this regard.
- 6.3 The institution encourages international cooperation and mobility of its teachers and analyses implementation of their experience in its activities. There are some possibilities for teachers for international cooperation and mobility, but management didn't do anything to encourage its teaching staff for participating. There should be a meeting organized to familiarize staff with benefits of international cooperation and mobility.
- 6.4 The University is a member of relevant international associations such as the Danube Rector's Conference, and it organizes joint conferences and symposiums.
- 6.5 The institution has just started thinking about fostering mobility of students; they believe all teachers are able to provide lectures in English. The institution is starting an exchange program with a university from Latvia. However, apart from the practical lifelong learning courses, they do not have foreign students. The institution should solve the logistic and accommodation problems for foreign students.



- 6.6 The institution participates in the Erasmus program, which is a part of the EU Lifelong Learning program, and was awarded the Extended Erasmus University Charter in November 2011, but they have neither incoming students nor teaching mobility within it. This is also connected to the current availability of facilities, which are too small even for the existing students.
- 6.7 The institution has participated in EU projects and has realistic, strategic plan for the next years.

7. Resources, Administration, Space, Equipment and Finance

- 7.1. The institution's current resources are scattered all over the city. Classrooms are well equipped but the main advantage is training vessel Naše More, which is the working laboratory for navigation and mechanical engineering study.
- 7.2. The institution provides the necessary training for its non-teaching staff. Non-teaching staff do not complain about it.
- 7.3. The equipment available at the institution is very good regarding the demands of the practical education of the maritime professionals, although it might not be sufficient for research especially in the area of virtual technology like CAD/CAM. The main advantages are training vessel Naše More and a few simulators like GMDSS, ARPA, bridge etc.
- 7.4. The institution provides the equipment and ensures all aspects of the organization can make the most of current and varied technologies.
- 7.5. The institution does collect information relevant to the improvement of its activities, but it seems that the stakeholders are involved only informally, and this should be changed.
- 7.6. The library has a good collection of books and journals, but has suffered - like many other libraries in Croatia - from the national budget costs. This is reflected in the fact that some journal volumes have not been complemented, and that the number of recently bought books and/or e-books can be improved.
- 7.7. There is a sufficient number of the administrative staff.
- 7.8. The institution used to have financial difficulties, which are now successfully solved, and in the future the funds may be invested into further quality development.
- 7.9. The institution seems to use its own funds to raise quality, and this should be continued in the future.

FINAL REPORT AND RECOMMENDATIONS BY THE EXPERT PANEL FOR THE ACCREDITATION COUNCIL

STRONG POINTS

Strategy

Introduction of the strategy is in line with the university strategy and proposed changes in teaching are recognized by students and staff. The department is very visible, particularly with regard to the future and the facilities like new building.

Study programmes

Programs of study are in line with international maritime standards, such as giving to the graduates an almost 100% certainty of employment in their profession. The Department has, at its disposal, a training vessel, it allows to train the students at a high professional level.

Institutional Positioning

General institutional positioning on the labour market and connections with global companies which offer scholarships to graduates are good. There are connections with great, global companies which offer scholarships to graduates. The institution has financial stability.

WEAK POINTS

Students

Student budget is only 1% of the university budget which is not enough to organize some extra activities.

Students are informed about the formal measures implemented on the basis of their suggestion and opinions however the management does not take under consideration their opinions and suggestions.

There is no international mobility of students and teachers.

Scientific and professional activity

The teachers as well as students are not encouraged to publish papers in foreign journals. There should be some sort of an award system for teachers or assistants as well as for publishing a paper in journals. There are no substantial research facilities or research projects which promote the research excellence.

RECOMMENDATIONS FOR IMPROVEMENT OF QUALITY

1) Management of the Higher Education Institution and Quality Assurance

It is recommended that the institution:

- systematically involves the stakeholders in improving the programs and practice, and formalizes their participation in the processes
- establishes rules and keeps the highest level of ethical behaviour which they have managed to achieve.
- improves the system of sea service (practice) on both levels regarding the STCW Convention and ECTS reflects.

2) Study Programmes

It is recommended that the institution:

- to update its study programmes in order to renew, and allocate ECTS points better and reduce the student workload. ECTS reflects should be put into practice as well.
- also ensures that the learning outcomes are aligned with the IMO regulation according the sea service (practice).
- establishes new courses of virtual graphic and calculation (FEM) like CAD/CAM on the engineering level.

Regarding the ratio teacher-students, it is obvious that the teaching overload is big and the expert panel advises Ministry of Science, Education and Sports to permit employment of new teachers in order to improve quality of studying.

3) Students

It is recommended that the institution:



- more closely monitors the extracurricular activities offered to but also carried out by the students and offers more research opportunities and grants to students
- provides more funds to the student union, and ensures that the students are well informed on how these are invested.

4) Teachers

It is recommended that the institution:

- solves the problem of teachers' overloads
- employs the sufficient number of teachers and ensures that they are provided with adequate academic and professional (maritime) qualifications
- pays more attention to the balance in the teachers' work between teaching and research
- pays more attention to international mobility.

5) Scientific and Professional Activity

It is recommended that the institution:

- invests more funds into buying additional, maritime equipment for laboratories and modern software for engineering graphic.
- employs qualified academic teaching staff necessary to support the young researchers, and tries to attract such visiting staff via mobility programs
- applies for more EU or bilateral projects under a consortium of companies or other universities.

6) International Cooperation and Mobility

The institution is recommended to:

- participate more actively in the Erasmus programme
- pay more attention for teachers mobility.
- start offering courses in English.

7) Resources, Administration, Space, Equipment and Finance

The institution is recommended to expand the library collection of new technical books and offer e-books and e-journals.