



**RE-ACCREDITATION OF
UNIVERSITY DEPARTMENT OF MARINE STUDIES
UNIVERSITY OF SPLIT**

**Date of the site visit:
22 - 23 April 2013, Split**

May 2013

COMPOSITION OF THE EXPERT PANEL

- Dr. Aristomenis Karageorgis (Chair), Institute of Oceanography, Hellenic Centre for Marine Research, Athens, Greece
- Prof. Mark Davies, University of Sunderland, United Kingdom
- Prof. Tomislav Treer, Faculty of Agriculture, University of Zagreb, Croatia
- Dr. Mirjana Najdek Dragić, Ruđer Bošković Institute Center for Marine Research, Rovinj, Croatia
- Dino Grozić, student, Department of Biology, Faculty of Science, University of Zagreb

Expert panel was supported by:

- Vlatka Šušnjak Kuljiš, coordinator
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- Goran Briški, translator

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INTRODUCTION

1. Short description of the evaluated institution

NAME OF HIGHER EDUCATION INSTITUTION: **University Department of Marine Studies
University of Split**

ADDRESS: **Livanjska 5, Split**

NAME OF THE HEAD OF HIGHER EDUCATION INSTITUTION: **prof. Svjetlana Krstulović Šifner,
Ph.D.**

ORGANISATIONAL STRUCTURE: **Head of Department, Vice-head of Department, Heads of
study programmes, Expert Council**

LIST OF STUDY PROGRAMMES:

- **undergraduate study of Marine Fishery**
- **graduate study of Marine Fishery**
- **undergraduate study of Marine Biology and Ecology**
- **graduate study of Marine Biology and Ecology**
- **postgraduate (doctoral) university study of Applied Marine Sciences**

NUMBER OF STUDENTS:

- **undergraduate study of Marine Fishery – 56 full time students**
- **graduate study of Marine Fishery – 34 full time students**
- **undergraduate study of Marine Biology and Ecology – 59 full time students**
- **graduate study of Marine Biology and Ecology – 39 full time students**
- **postgraduate (doctoral) university study of Applied Marine Sciences – 42 full time
students**

NUMBER OF TEACHERS: 5 full time staff, 14 university associates and 29 external associates

NUMBER OF SCIENTISTS: 5 full time staff appointed into scientific-teaching grades

TOTAL BUDGET: 3.771.565,48 HRK

MSES FUNDING: 3.020.360,55 HRK

OWN FUNDING: 17,4%

SHORT DESCRIPTION OF HIGHER EDUCATION INSTITUTION:

University Department of Marine Studies was established as a Department of Maritime Affairs of the University of Split on May 22nd 1998, by the Decision of the Governing Board of the University of Split. On July 13th 1998, at the proposal of the Senate of the University of Split, it was renamed by the same Council as the Department of Marine and Maritime Studies of the University of Split. Within that department were three graduate studies: Marine Fishery, Marine Biology and Ecology and Maritime Systems and Processes.

By decision of the Senate of the University of Split from May 15th 2003, the graduate study of Maritime Systems and Processes was separated from the Department of Marine and Maritime Studies and merged with newly established Faculty of Maritime Studies in Split. Department of Marine and Maritime Studies was renamed as Department of Marine Studies, and by the Decision of the Senate of the University of Split, on January 26th 2006 it changed its name to University Center of Marine Studies. On September 26th 2011, the University Senate brought up a decision to change the name to the University Department of Marine Studies, which is still current.

When talking about the history of the University Department of Marine Studies, it should not be forgotten the Department of Maritime and Fisheries Technology which, by the decision of the Ministry of Education and Culture of the Republic of Croatia on June 5th 1991, was organized at the Maritime Faculty in Dubrovnik, Studies in Split, as a joint program of the Maritime Faculty and the Institute of Oceanography and Fisheries in Split. Department of Maritime and Fisheries Technology has enrolled the first students in academic year 1991/1992. The study lasted four years with the acquisition of academic title of Engineer of Maritime Transport, majored in Maritime Fisheries Technology. The same Department was closed in 1998, when as a four-year study of Marine Fishery was annexed, as previously stated, to the newly established Department of Marine and Maritime Studies of the University of Split. Therefore, the Department of Maritime and Fisheries Technology can be considered as the originator of today's University Department of Marine Studies.

Today, two undergraduate and two graduate study programs and one postgraduate (doctoral) university study program are organized at the University Department of Marine Studies of the University of Split. The latter is self-financed and conducted in collaboration with the University of Dubrovnik and the Institute of Oceanography and Fisheries in Split. Undergraduate and

graduate programmes are: Marine Biology and Ecology and Marine Fishery, while postgraduate (doctoral) university study programme is Applied Marine Sciences.

2. The work of the Expert Panel

For its work the Panel drew upon the Self-Evaluation Report, prepared by the (name of the faculty/polytechnic/college). A site visit was carried out on the 22 - 23 April 2013. During the visit to the Department the Expert Panel held meetings with the representatives of the following groups:

- The Management (Head and Vice Head of Department and Vice Rector for teaching);
- The Working Group that compiled the Self-Evaluation and representatives of the Quality Improvement Committee;
- The students, i.e., a self-selected set of students present at the interview;
- The Vice Rector for teaching;
- Teaching staff;
- Teaching assistants and junior researchers.
- Leaders of Scientific projects;
- Administrative staff;

The Expert Panel also visited the premises of the Institute of Oceanography and Fisheries in Split (22 April 2013) where they had a tour of the laboratories, the library, IT rooms, and the classrooms, where they held a brief question and answer session with the teachers and students who were present. On the 23 April 2013, the Expert Panel visited 2 industries nearby Split, namely Ancora commerce and Conex-trade, dealing with fresh and frozen fish trade, and cannery, and met with former students of the Department who were employed, as well as other students who were taking practice.

DETAILED ANALYSIS BASED ON STANDARDS AND CRITERIA FOR RE-ACCREDITATION

1. Higher education institution management and quality assurance

- 1.1. The Department presented a short document on strategy, prepared in April 2013 in Croatian, thus the Expert Panel was not able to fully evaluate the goals set for the future. Although the incorporation of stakeholders was evidenced in many ways during the meetings and visits to cooperating industries, the involvement of stakeholders does not appear in the current version of the strategy. The strategy document needs to be further elaborated and expanded, in order to show clearly and in detail goals and tasks to be tackled, as well as the involvement of stakeholders.
- 1.2. The Department follows an effective organizational internal structure, which is not however formalized in legal documents. This is due to the current status of the Department, which is not fully integrated with the University.
- 1.3. The Department does contribute to the enhancement of knowledge and promotes research, but there is no way to evaluate whether or not these activities are in line with University's strategy, as there is no strategy defined at the University level.
- 1.4. The study programmes of the Department are well-structured and in line with its mission.
- 1.5. The Department has developed a Quality Policy, but it is at an early stage. Although the procedures have been defined according to the Croatian Qualifications Framework, there is a clear need for improvement, as procedures are not connected and enhancement of activities does not appear.
- 1.6. Despite the very recent issue of the strategy document, the Department manages well its activities, and involves students and stakeholders.
- 1.7. At the end of each semester the students fill-out questionnaires which are effectively used for the evaluation of teaching quality; the results are processed within one month after completion, and are further used for monitoring and improving the teaching quality. However, the procedure can be further enhanced, as for example by introducing electronic questionnaires, and also by attracting more students.
- 1.8. Formal mechanisms for monitoring and improvement of research quality have been established and are largely focused on the engagement in research projects, and publication of research work in a range of national and international peer-reviewed scientific journals.
- 1.9. An Ethics Committee has been established to maintain a high level of ethical principles at the Department. So far there have been no incidents of bad behaviour, and therefore the Committee was not requested to act.

2. Study programmes

- 2.1. The Department has effective processes by which study programmes are proposed and approved. The procedure of approval, verification and monitoring of study programmes are formalized in the Manual of the Quality assurance of the Department which is based on the Standards and Guidelines for Quality assurance in the European Higher Education Area and includes all stakeholders.
- 2.2. The Department mostly ensures that its enrolment quotas are justified by the needs of society. According to the Self-evaluation document, and information acquired during the re-accreditation process, a number of the graduates in Marine Fishery are employed

immediately after graduation. At present, achieved learning outcomes of the Marine Biology and Ecology (MBE) study programme do not ensure the employability of graduates. In order to achieve a better recognition of graduate programmes on the labour market it is recommended to revise and upgrade the graduates' competencies (e.g. by introducing some courses in relation to EU Water Framework Directive, descriptors of Good Environmental Status and indicators of water quality which will provide students with the basis for targeting and performing surveys of environmental quality and acquire knowledge in administration of the marine environment. These can be accomplished with the help of academic staff in IOF already active in teaching, consultancy and research). The innovation and improvement of the existing study programmes should include all stakeholders.

- 2.3. The enrolment quotas are in line with the present Department spatial and human resources for quality teaching and the analysis of pass rates. The enhancement of the enrolment quota for Marine Fishery study programme is justified with the lower pass rates and larger need for this profession in the labour market.
- 2.4. Student learning outcomes set by teachers and stated at the level of the study programme and its courses, clearly describe knowledge and skills of the graduates.
- 2.5. Assessment of student learning is aligned with stated learning outcomes and achievement of this is established through mid-term exams, seminars, practical work and final exams. However, the difference in learning outcomes between the undergraduate and graduate qualification levels is too small and not appropriate. Teachers are aware of this weakness. It is recommended to raise the level of learning outcomes at the graduate study by increasing competencies of graduates and this could be accomplished through revision of the graduate study programmes. This will be also beneficial for the recognition of graduates in the labour market.
- 2.6. During the site visit the students stated that particular courses are underestimated in respect to assigned ECTS credits. After consultation with students and the establishment of clear uncertainties, the analysis of the highlighted inadequate load on particular courses and adjusting the ECTS credits is recommended.
- 2.7. The content and quality of each study programme conforms to internationally recognized standards. In the development and creating of the study programmes staff followed the curricula and courses of other renowned international universities involved in issues related to the marine environment (University of Cadiz, Spain, University of Rhode Island, USA) and fisheries (Faculty of Fisheries and Marine food Technology in Szczecin, Poland, University of Bergen, Norway).
- 2.8. The course classes are organized through lectures, seminars, laboratory and auditory exercises, demonstrative exercises in accredited laboratories, practical and fieldwork. These are appropriate teaching methods, responsive to various student learning styles, and encourage students to be autonomous and responsible learners.
- 2.9. The Department assures sufficient and appropriate amount of learning material including electronic databases. The degree of computerization of the library is satisfactory with constant updating of the information system. The library provides access to several databases (bibliographic, citation and full text) purchased by MSES of Croatia.
- 2.10. The fieldwork training outside the Department is very comprehensive and carried out in research and fishing vessels, fish processing factories and hatcheries. During the tour of student work sites at Conex-trade and Ancora commerce the expert panel saw at first-hand that in these arrangements students acquire new skills and competencies indispensable in future employment.

3. Students

- 3.1. Admission criteria are regularly reviewed and are aligned with the competencies required in students' future careers.
- 3.2. & 3.3. The teachers are very motivated and care for the welfare of their students. They provide good support to students concerning extracurricular activities, counselling, mentorship and professional orientation.
- 3.4. The Department shows interest in improving the level of student standard, but decisions concerning student standard are in the jurisdiction of the University and the Senate, not the Department.
- 3.5. Students are informed about the assessment methods and procedures. Teachers provide students with feedback in order to improve their knowledge and students have a formal possibility of appeal.
- 3.6. The Department should improve contacts with alumni and develop a systematic approach to gathering information about the employability of its graduates.
- 3.7. Students participate in the work of the Expert Council of the Department and therefore can participate in decision-making processes.
- 3.8. In addition to the existing methods of informing the public about its study programmes, the Department should consider a different approach to attract the attention of their potential students. This can be achieved by involving the Department's students in creating thematic events, such as 'open doors' days, with lectures and practical demonstrations. These events should target not only the secondary education graduates but younger age groups as well. Increased effort in promoting the Department's study programmes at the university fairs of Rijeka and Zagreb may prove beneficial in increasing the number of motivated students enrolling the Department's study programmes. It is also advisable to support the work of the existing student association 'Oceanus' in promoting fisheries and biology.
- 3.9 & 3.10. Student opinion and proposals are acknowledged by the Department. Some curriculum issues were successfully resolved as a response to student initiative.

4. Teachers

- 4.1. While the qualifications of teachers meet strategic and operational needs, there is, in general, a paucity of teaching staff employed by the department and it is recommended that numbers of such staff are increased to promote both sustainability and stability. It was noted that some external teachers were not performing at an acceptable level, that the department was aware of this issue, and that its attempts at remedy in conjunction with the University had been unsuccessful. It is recommended that the University and department jointly pursue remedial action.
- 4.2. The department pays sufficient attention to its human resources and has identified the need for more teaching staff. However, manpower planning is unsophisticated and arguments could be better developed and articulated. It is recommended that more detailed rationales be presented as the department addresses its human resources needs.
- 4.3. While in general the approaches used in the delivery of teaching and learning are robust, the department has identified the need to strengthen its personnel basis by the appointment of more full-time teachers. The panel concurs with this view. It is recommended that the department, in conjunction with the University, pursues its goals in securing more full-time teachers.

- 4.4. The ratio between students and full-time teachers is sufficient to allow effective learning, though there is some room for improvement. The panel acknowledges that the department has worked very hard with respect to staffing, but considers that there should be a period of consolidation in conjunction with the University. It is recommended that the department continues to reduce the ratio between students and full-time teachers and that the University plays an active role in this process.
- 4.5. The department makes provision for the development of its staff primarily through research-based activities: development in learning and teaching may come from these activities but is unstructured. Junior staff that the panel met indicated that they would welcome development in classroom techniques. In order that the department's teachers can offer a learning experience to their students based on global good practice, it is recommended that staff development needs and priorities are identified and that staff are systematically trained and developed in learning and teaching in higher education.
- 4.6. Methods for assessing the effectivity of teaching staff are largely based around student evaluations and have as a basis the national criteria, which are extended minimally for use in the department. The panel encourages the department to be creative in adopting procedures that further extend the national criteria.
- 4.7. In general teaching workloads are fair and equitable, though policies in this respect are not explicit.
- 4.8. The department follows University policy on external engagement of staff such that there is no compromise to learning by the department's students.

5. Scientific and professional activity

- 5.1. A research agenda, though not a strategy, is well developed and the department has in place formal procedures to monitor success using specific indicators, mostly relating to published outputs.
- 5.2. The department is developing its portfolio of research collaborations, including with industry, and is on an upward trajectory.
- 5.3. The department presented well the ways in which research is integrated into its overall activity, in particular the link between research and teaching. The panel saw clear evidence of where the research of members of the department is used to enhance the experience of students at all levels.
- 5.4. The department adopts a caring attitude to young researchers, recognising them as future research leaders for the department, University, Croatia and beyond.
- 5.5. Research excellence is promoted and it clear that the department's vision in this respect is shared by the staff, though any policy is implicit rather than explicit.
- 5.6. The panel had no doubts that the staff are aware of the need to publish their work and there was a strong departmental steer, though any policy is implicit rather than explicit. Outputs are understandably modest, given the size of the overall research team, and there is much future promise.
- 5.7. The department fully understands its scientific productivity. It collects and stores data on activities, which it uses to make comparison with similar national and international bodies.
- 5.8. The department has strong links with industry, particularly for teaching, and there is potential to strengthen these links through research. In general professional activities and services are effectively promoted through efficient knowledge exchange; the panel saw several examples of this. The department is aware of the status of its activities.

6. *Mobility and International cooperation*

- 6.1. The Department tries to promote such mobility. However, the results are very poor, so the mobility of students from other higher educational institutions should be significantly strengthened.
- 6.2. Fully implemented, as some students completed a part of their programme abroad, which was recognized by the Department.
- 6.3. Most of the teachers performed short term international mobility. Longer term mobility should be encouraged and the implementation of their experiences analysed.
- 6.4. This is fully implemented and should be followed by joining international projects.
- 6.5. The Department tries to attract students from abroad, but this kind of activity should be much more strengthened.
- 6.6. The Department actively participates in the ERASMUS programme and has bilateral agreements, which could be strengthened by other programmes (e.g. Marie Curie etc.).

7. *Resources: administration, space, equipment and finances*

- 7.1. Together with the Institute of Oceanography and Fisheries the Department provides appropriate resources for the students.
- 7.2. Considering only the fully employed staff of the Department this ratio is questionable. However, the teaching is performed also by University associates and part-time teachers, and some non-teaching staff are used from the University.
- 7.3. The University provides education for non-teaching staff.
- 7.4. Recognized laboratory procedures are fully implemented. Laboratories used are at the Institution of Oceanography and Fisheries.
- 7.5. The Department pays much effort to fully implement this criterion, supported by the Institute of Oceanography and Fisheries.
- 7.6. The library at the Institute of Oceanography and Fisheries and the computers available help to fully implement this criterion. However, longer working hours at the University's library would be beneficial for students.
- 7.7. The finances at the Department are regulated at the University level, and facilitate students to graduate.
- 7.8. The Department's own funds help in raising the quality of teaching and scientific activity.

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

The Department of Marine Studies-University of Split is a healthy constituent of the educational and research system of Croatia. The undergraduate, graduate, and postgraduate study programmes are well-defined, and taught with success over the years. The Administration is doing an excellent job in recruiting young, strongly motivated individuals who show high performance in teaching and research. Moreover, many teachers come from the Department and they are employed sometimes soon after the completion of their doctoral studies. As such, they know very well the pros and cons of the Department and work with high dedication. It is noteworthy that the entire conversations of the Expert Panel with the Management Team, the teachers, and the students were made in English, proving that both staff and students are highly competent and ready to adopt into the highly competitive European Union education and research.

The on-going collaboration with the Institute of Oceanography and Fisheries in Split is a win-win symbiosis, where researchers have the opportunity to teach and students have access to highly equipped laboratories and research infrastructure. Teachers and researchers have mutual benefits from joined research projects, and subsequent publications. The excellent relation of teachers and students was easily recognized in students' enthusiasm and eagerness for learning at all levels, especially in practical exercises. On its own this is a great success and supports the fundamental cornerstones of education.

Inevitably, some issues need to be strengthened in the near future in order to lead the Department to excellence. The Department belongs to the University of Split that has not been entirely integrated, giving rise to a number of problems for which the Department is not responsible, but they create imbalances that need to be addressed. One of the most pressing issues has to do with the limited number of permanent position teaching staff, and the high number of teaching associates. A modern Department with vision for development needs a solid core of teachers who will support the study programmes, and cover all major courses. In that respect, the associates need to be replaced soon by fully employed teachers and the ratio of permanent to associate teaching staff will improve. Caution should be taken to minimize as much as possible introversion and recycling of knowledge by employing former students at teaching positions; the continuous improvement of the staff and their active participation in educational and research institutions outside Croatia need to be enhanced. If the Department envisions being the top institution in marine sciences in the country, then marine chemistry, geology and physics should be introduced at least at the graduate and postgraduate level.

Given that Croatia will become a full member of the EU in a few weeks, the Department will have great opportunities to participate in research projects and networks. On the other hand, the adaptation of EU policies (Water Framework Directive, Fisheries Directive, and Marine Strategy Framework Directive) will promote marine research at the national level, thus enhancing development. The Department should be readily prepared to support Croatia's European profile in marine sciences.

1. ADVANTAGES (STRONG POINTS)

1. Young, motivated and well-educated teachers
2. Collaboration with one of the top research institutions of the country
3. Strong relationships developed between teachers and students
4. Excellent knowledge of English at all levels: administration, teachers, students
5. Collaboration with stakeholders for student practice
6. Engagement of stakeholders in research
7. Appropriate teaching methods responsive to various student learning styles
8. Very comprehensive fieldwork training outside the Department

2. DISADVANTAGES (WEAK POINTS)

1. Non-integrated University
2. Low number of permanent teaching staff
3. Introversion and possible recycling of knowledge
4. Marine Fisheries students enrol with low qualifications
5. Only short-term visits of teachers to institutions outside Croatia
6. Orientation in marine Biology and Fisheries, other marine sciences appear minimal and fragmented
7. Too small a difference in learning outcomes between the undergraduate and graduate qualification levels
8. Insufficient recognition of competencies of graduates in the labour market

RECOMMENDATIONS FOR IMPROVEMENT OF QUALITY

1. Management of the Higher Education Institution and Quality Assurance

- Rapid transition to integrated University
- Clear strategy for the next few years, with well-defined goals and tasks
- Employment of permanent position teachers
- Quality Policy adaptation with consistency, monitoring, and enhancement
- Activation of all committees

2. Study Programmes

- Innovation and improving of the graduate study programmes
- Increasing competencies of graduates
- Systematic upgrading of ECTS credits

3. Students

- Improve communication with alumni
- Organise thematic events to attract new students
- Support student associations

4. Teachers

- Increase numbers of teaching staff employed by the department
- In conjunction with the University, address the issue of underperforming external teachers
- Present more detailed rationales for developing human resource
- In conjunction with the University, pursue goals in securing more full-time teachers
- In conjunction with the University, continue to reduce the ratio between students and full-time teachers
- Identify staff development needs and priorities, and systematically train staff in learning and teaching in higher education.

5. Scientific and Professional Activity

There are no recommendations under this section.

6. International Cooperation and Mobility

- Enhance the mobility of students from other higher educational institutions
- Encourage the long term mobility of teachers and analyse their experience
- Make more efforts to attract students from abroad
- International cooperation should be strengthened by programmes other than ERASMUS (e.g. Marie Curie; <http://ec.europa.eu/research/mariecurieactions/>)

7. Resources, Administration, Space, Equipment and Finance

- More efforts should be implemented to ensure the Department's resources
- Own University library with longer working hours would be beneficial