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ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΣΤΗΝ ΑΝΩΤΑΤΗ ΕΚΠΑΙΔΕΥΣΗ

HELLENIC REPUBLIC
HQA
HELLENIC QUALITY ASSURANCE
AND ACCREDITATION AGENCY

Accreditation Report for the Undergraduate Study Programme (Integrated Master) of:

Ichthyology and Aquatic Environment
Institution: University of Thessaly
Date: 09/11/2019

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Επιχειρησιακό Πρόγραμμα
Ανάπτυξη Ανθρώπινου Δυναμικού,
Εκπαίδευση και Διά Βίου Μάθηση
Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης



Report of the Panel appointed by the HQA to undertake the review of the Undergraduate Study Programme (Integrated Master) of **Ichthyology and Aquatic Environment** of the **University of Thessaly** for the purposes of granting accreditation

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PART A: BACKGROUND AND CONTEXT OF THE REVIEW

I. The Accreditation Panel

The Panel responsible for the Accreditation Review of the Undergraduate Study Programme (Integrated Master) of **Ichthyology and Aquatic Environment** of the **University of Thessaly** comprised the following five (5) members, drawn from the HQA Register, in accordance with the Law 4009/2011:

1. **Prof. Andronikos MAUROMOUSTAKOS** (Chair)
University of Arkansas, Fayetteville, USA
2. **Prof. Emeritus Ioannis VLAHOS**
Hellenic Mediterranean University, Heraklion, Greece
3. **Prof. Spyros SFENTHOURAKIS**
University of Cyprus, Lefkosia, Cyprus
4. **Prof. Constantin VAMVAKAS**
University of Ghent, Ghent, Belgium
5. **Dr. Dimitrios GALAMATIS**
Geotechnical Chamber of Greece, Thessaloniki, Greece

II. Review Procedure and Documentation

The first three members of the Accreditation Panel (AP) convened on Monday 4th November 2019 at the “Royal Olympic Hotel” in Athens. Prof. Vamvakas, due to a family emergency, could not participate in person and joined the meetings during the site visit via teleconference. The last member, Dr. Galamatis, joined the AP on Tuesday, 5th November 2019. The AP was briefed by the President and the General Director of HQA on the Quality Assurance (QA) standards for Quality Accreditation of Undergraduate Programmes and Accreditation Guidelines. During the briefing, the panel received the final timetable for the site visit at the Department of Ichthyology and Aquatic Environment (DIAE) of the University of Thessaly (UTH). At an earlier stage, the AP received the DIAE Proposal for Accreditation by the Internal Quality Assurance System and other relevant material, and the External Evaluation Report (2011). Additional supporting documentation was provided by DIAE staff during the on-site visit and presentations. Subsequently, the AP met and discussed the strategy and issues to be considered during the site visit. In the afternoon of the same day, the AP traveled to Volos.

On Tuesday 5th November 2019, the AP initially met with the University Vice-Rector and the Department Head. The Vice-Rector also serves as the President of the Quality Assurance Unit (QAU). The AP was briefed on the history and academic profile of the UTH and DIAE. Later, the Internal Evaluation Group (IEG) together with representatives of QAU joined the meeting, and the Head of IEG presented the Department’s current profile, its strengths and areas for improvement. The AP had an extensive meeting with IEG/QAU and discussed the compliance of the Ichthyology and Aquatic Environment undergraduate/integrated MSc programme to the “Standards for Quality Accreditation for Undergraduate Programmes” set by HQA. Later on, the AP met teaching staff members to discuss the undergraduate study programme, professional development opportunities, mobility, faculty workload and the teaching staff evaluation by students. Following that, a meeting with undergraduate and graduate students, alumni, and external stakeholders from the private and public sectors, through both physical and videoconference, took place. The AP had a short internal debriefing meeting to reflect on the impressions of the first day and prepare for the second day of the visit.

On Wednesday 6th November 2019, the AP visited the DIAE premises and facilities. The AP toured research and teaching laboratories (Ichthyology-Hydrobiology, Oceanography, Aquaculture, Marketing & Technology of Fishery Products & Foods, Eco-hydraulics and Freshwater Management). More specifically, the AP visited the following lab units related to the afore-mentioned laboratories: aquaculture, aquaponics, snail culture, histology, genetics/genomics, zoology, and microscopy. The DIAE staff also presented equipment storage facilities, computer rooms, and classrooms. Afterward, the AP selected a classroom and a teaching lab randomly and met and discussed with undergraduate students without the presence of instructors, to receive broader anonymous feedback on the undergraduate programme and student life. Later on, the AP had a short debriefing meeting with the Vice-Rector, IEG and QAU, to discuss the site visit outcomes. The AP acknowledges the warm welcome by the DIAE staff during the entire visit and their spirit of cooperation. All parties involved conducted themselves professionally and the process was smooth, effective and efficient. During the afternoon, the AP traveled back to Athens.

From Thursday 7th to Saturday 09th November 2019, the AP worked on the Accreditation Report.

III. Study Programme Profile

The Department of Ichthyology and Aquatic Environment (DIAE) was established as a separate entity during the 2002-2003 academic year, named 'Department of Agriculture, Animal Production and Aquatic Environment'. Its current name was given in 2006 (P.D. 109/2006).

Today, the Department is comprised of twenty (22) academics, six (6) Laboratory Teaching Staff members, four (4) Special Technical Laboratory Staff members, four (4) Administrative Staff members, two (2) teaching personnel under the P.D. 407/80, and five (5) academic fellows.

The DIAE includes the following officially established five (5) labs:

1. Ichthyology-Hydrobiology
2. Oceanography
3. Aquaculture
4. Marketing and Technology of Fisheries Products and Food
5. Eco-hydraulics and Freshwater Management

The number of incoming students per year is determined by the Ministry of Education and Religious Affairs. The total number of incoming students for the current academic year it was 197. The total number of undergraduate students today is 778 and the average graduation time is 6.36 years with an average GPA 7.03 and a graduation rate of an increasing tendency.

The total number of graduates since the Department's institution is 400 graduates, 209 MSc, and 20 PhD, students.

The undergraduate programme of study offers an integrated MSc degree. DIAE is the only Greek university-level Department with a 10 semesters (5 years) programme of study providing a degree in ichthyology.

A total of 300 ECTS are needed to conclude studies. Each student must succeed in 54 courses (50 mandatory and 4 electives), a mandatory thesis (30 ECTS), as well as a four month internship (two months each in the end of the 3rd and 4th years of study), considered and assessed as a mandatory course (6 ECTS).

PART B: COMPLIANCE WITH THE PRINCIPLES

Principle 1: Academic Unit Policy for Quality Assurance

INSTITUTIONS SHOULD APPLY A QUALITY ASSURANCE POLICY AS PART OF THEIR STRATEGIC MANAGEMENT. THIS POLICY SHOULD EXPAND AND BE AIMED (WITH THE COLLABORATION OF EXTERNAL STAKEHOLDERS) AT ALL INSTITUTION'S AREAS OF ACTIVITY, AND PARTICULARLY AT THE FULFILMENT OF QUALITY REQUIREMENTS OF UNDERGRADUATE PROGRAMMES. THIS POLICY SHOULD BE PUBLISHED AND IMPLEMENTED BY ALL STAKEHOLDERS.

The quality assurance policy of the academic unit is in line with the Institutional policy on quality, and is included in a published statement that is implemented by all stakeholders. It focuses on the achievement of special objectives related to the quality assurance of study programmes offered by the academic unit.

The quality policy statement of the academic unit includes its commitment to implement a quality policy that will promote the academic profile and orientation of the programme, its purpose and field of study; it will realise the programme's strategic goals and it will determine the means and ways for attaining them; it will implement the appropriate quality procedures, aiming at the programme's continuous improvement.

In particular, in order to carry out this policy, the academic unit commits itself to put into practice quality procedures that will demonstrate:

- a) the suitability of the structure and organization of the curriculum;*
- b) the pursuit of learning outcomes and qualifications in accordance with the European and the National Qualifications Framework for Higher Education;*
- c) the promotion of the quality and effectiveness of teaching;*
- d) the appropriateness of the qualifications of the teaching staff;*
- e) the enhancement of the quality and quantity of the research output among faculty members of the academic unit;*
- f) ways for linking teaching and research;*
- g) the level of demand for qualifications acquired by graduates, in the labour market;*
- h) the quality of support services such as the administrative services, the Library, and the student welfare office;*
- i) the conduct of an annual review and an internal audit of the quality assurance system of the undergraduate programme(s) offered, as well as the collaboration of the Internal Evaluation Group (IEG) with the Institution's Quality Assurance Unit (QAU);*

Study Programme compliance

The UTH has established an appropriate Quality Assurance Unit (QAU) that has clearly defined the review processes, the programme's continuous improvement, and Key Performance Indicators. The QAU effectively and continuously monitors and enforces the Quality Assurance Policy that is applied in DIAE by a committee (IEG) consisting of four (4) DIAE members. It has to be noted that, as by 2018-2019, students did not participate in any of the relevant procedures, committees and units, following a decision of UTH students' council.

The DIAE has set specific goals for its undergraduate study programme. The IEG is in line with QAU for the improvement of the study programme. Relevant information is shared with involved parties and posted to the UTH/QAU intranet and DIAE website.

The AP found the academic unit's quality assurance policy to be well-structured, including also a quality policy statement in line with HQA and QAU guidelines. The quality policy statement aims at realising the programme's strategic goals and determines the means and ways for

attaining them and is accompanied by specific quantitative targets and their current degree of compliance.

The annual reports of IEG, though, are somewhat brief and text-based, without detailed metrics and diagrams that would make more accessible the identification of actual progress. Besides, the submitted Accreditation Proposal was rather wordy, not in full compliance with the HQA guidelines, and not explicitly presenting the improvement in the specific target areas of the 2011 External Evaluation. It should be noted here that appropriate material expected to be found in the proposal report was provided in the department head PowerPoint presentation where the compliance of the critical points of the EEC were addressed.

Panel judgement

Principle 1: Institution policy for Quality Assurance	
Fully compliant	
Substantially compliant	X
Partially compliant	
Non-compliant	

Panel Recommendations

- The AP acknowledges the quality assurance procedures by DIAE, and recommends continuing efforts to ensure students' participation and involvement in IEG.
- The AP recommends more detailed annual progress reports by the IEG, enriched with quantitative measures and figures showing the current profile in all aspects relevant to the undergraduate study programme.

Principle 2: Design and Approval of Programmes

INSTITUTIONS SHOULD DEVELOP THEIR UNDERGRADUATE PROGRAMMES FOLLOWING A DEFINED WRITTEN PROCESS WHICH WILL INVOLVE THE PARTICIPANTS, INFORMATION SOURCES AND THE APPROVAL COMMITTEES FOR THE PROGRAMME. THE OBJECTIVES, THE EXPECTED LEARNING OUTCOMES, THE INTENDED PROFESSIONAL QUALIFICATIONS AND THE WAYS TO ACHIEVE THEM ARE SET OUT IN THE PROGRAMME DESIGN. THE ABOVE DETAILS AS WELL AS INFORMATION ON THE PROGRAMME'S STRUCTURE ARE PUBLISHED IN THE STUDENT GUIDE.

Academic units develop their programmes following a well-defined procedure. The academic profile and orientation of the programme, the objectives, the subject areas, the structure and organisation, the expected learning outcomes and the intended professional qualifications according to the National Qualifications Framework for Higher Education are described at this stage. The approval or revision process for programmes includes a check of compliance with the basic requirements described in the Standards, on behalf of the Institution's Quality Assurance Unit (QAU).

Furthermore, the programme design should take into consideration the following:

- *the Institutional strategy*
- *the active participation of students*
- *the experience of external stakeholders from the labour market*
- *the smooth progression of students throughout the stages of the programme*
- *the anticipated student workload according to the European Credit Transfer and Accumulation System*
- *the option to provide work experience to the students*
- *the linking of teaching and research*
- *the relevant regulatory framework and the official procedure for the approval of the programme by the Institution.*

Study Programme compliance

The DIAE undergraduate/integrated MSc programme is the only such programme offered by Greek universities, and one of the very few similar programmes globally. This is an advantage since it offers unique opportunities to graduate students in the labour market but on the other hand, it cannot be directly compared with many other programmes. The DIAE undergraduate programme includes a wide range of courses along four main axes, namely, fisheries, aquatic animal and plant production, technology and marketing of fisheries production, and management of aquatic environment. These four axes are not balanced, though, with the focus being on fisheries and aquaculture. The professional rights of graduates as ichthyologists lead to positive views by relevant stakeholders regarding the levels of their knowledge and skills.

The AP positively views the fact that the five-years programme leading to an integrated MSc degree, offers a significant advantage to graduates in both the labour market and academia.

The work-load of students seems to be somewhat excessive in terms of course numbers (54 plus thesis) and the Department might consider reducing it by a couple of courses. Also, the ratio of mandatory to elective courses seems to be very high, and the Department might consider reducing it so that the four axes can become more balanced, and each student can have options starting the elective offerings from the seventh semester. Additional electives could also be offered on topics not covered sufficiently today, for example, on "Research Methodology", "Scientific Writing and Presentations", "Ethics and Law" and "Data Analytics". Since these topics are common and general found in most graduate programs they can be offered in collaboration

with other departments through video conferences and online site with external experts and stakeholders.

The academic staff links research with teaching in the undergraduate programme, mainly through the undergraduate thesis and the internship, but also by using examples of their research in courses. It is noteworthy that several undergraduate theses are presented in scientific congresses. The AP positively views that most undergraduate thesis topics are mostly research projects with data collection and analysis and not just literature reviews.

Nevertheless, the AP notes that the expertise of existing staff does not cover all fields of study, with essential components still lacking, most notably Ichthyology! The AP thinks that the Department should address this problem in the future calls for new faculty.

This issue notwithstanding, the DIAE undergraduate study programme curriculum is generally well-articulated and comprehensive, and the student workload is compliant with the European Credit Transfer and Accumulation System (ECTS).

The Department responded to the 2011 External Evaluation by reducing the number of courses offered.

Students expressed the need and wish for additional hands-on laboratory training since many laboratory courses are based mainly on demonstrations. Of course, this is mostly due to the lack of funds for consumables and equipment maintenance. The AP acknowledges, though, the importance of internship and mandatory thesis for the laboratory training of students.

The teaching load of faculty seems to be relatively high, and in addition to the suggested reduction of total course number (that is needed in all similar AG related GR departments), the AP notices the potential for coordination with the neighboring Department of Agriculture, Crop Production and Rural Environment in offering common elective courses. This potential could be exploited further with the assistance of the university's administration (since many of these new elective courses potentially could be taught by appropriate experts that exist within the UTH system) and would lead to some reduction of the average teaching load. The AP understands, though, that this suggestion, also made by the External Evaluation Committee, is challenging to implement for most required courses due to the lack of available space for students in laboratories, given that most courses have a laboratory component.

A revision of the study programme at an annual basis in consultation with stakeholders, external experts, students and graduates, should be further promoted by the IEG.

The DIAE undergraduate/integrated MSc programme leads to fully established professional rights in ichthyology and fisheries studies, but perhaps in the future potential for additional professional rights could be explored.

All stakeholders present expressed a positive view on the programmes' graduates, many of which were graduates of the programme themselves.

Panel judgement

Principle 2: Design and Approval of Programmes	
Fully compliant	
Substantially compliant	X
Partially compliant	
Non-compliant	

The Accreditation Panel agrees that this Programme leads to a Level 7 Qualification according to the National & European Qualifications Network (Integrated Master)	YES	NO*
	X	

**In case of negative judgement, please justify*

Panel Recommendations

- Additional hands-on laboratory training of students should be pursued.
- DIAE should consider a reduction of the total required course number with an increase of the number of elective courses on general topics starting with the fourth year of study.
- The DIAE and UTH should strengthen its efforts towards collaboration in common courses with the neighboring Department.
- A better-structured procedure for an annual revision of the study programme should be established, also involving stakeholders, external experts, graduates, and students.
- The four major axes of study should become more balanced as new faculty are hired.
- Expertise of future staff should reflect more accurately the programme of study.
- Comparison with similar study programmes in other universities and institutes all over the world could and should be used to improve the Department's programme, and should be made available in all future evaluations/accreditations.

Principle 3: Student-centred Learning, Teaching and Assessment

INSTITUTIONS SHOULD ENSURE THAT THE UNDERGRADUATE PROGRAMMES ARE DELIVERED IN A WAY THAT ENCOURAGES STUDENTS TO TAKE AN ACTIVE ROLE IN CREATING THE LEARNING PROCESS. THE ASSESSMENT METHODS SHOULD REFLECT THIS APPROACH.

Student-centred learning and teaching plays an important role in stimulating students' motivation, self-reflection and engagement in the learning process. The above entail continuous consideration of the programme's delivery and the assessment of the related outcomes.

The student-centred learning and teaching process

- *respects and attends to the diversity of students and their needs, enabling flexible learning paths;*
- *considers and uses different modes of delivery, where appropriate;*
- *flexibly uses a variety of pedagogical methods;*
- *regularly evaluates and adjusts the modes of delivery and pedagogical methods aiming at improvement*
- *regularly evaluates the quality and effectiveness of teaching, as documented especially through student surveys;*
- *reinforces the student's sense of autonomy, while ensuring adequate guidance and support from the teaching staff;*
- *promotes mutual respect in the student - teacher relationship;*
- *applies appropriate procedures for dealing with students' complaints.*

In addition :

- *the academic staff are familiar with the existing examination system and methods and are supported in developing their own skills in this field;*
- *the assessment criteria and methods are published in advance;*
- *the assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Students are given feedback, which, if necessary is linked to advice on the learning process;*
- *student assessment is conducted by more than one examiner, where possible;*
- *the regulations for assessment take into account mitigating circumstances*
- *assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures;*
- *a formal procedure for student appeals is in place.*

Study Programme compliance

The student-centred character of DIAE's undergraduate programme is mostly expressed through students' hands-on involvement in the mandatory internship and undergraduate thesis, both of which have a strong laboratory/experimental component. Students do not have enough flexibility in selecting learning paths via an adequate number of elective courses, the range of which should be broadened further.

The AP could not identify attempts to include different modes of delivery, but the students interviewed expressed their satisfaction with teaching quality. Attendance of students is at relatively high levels for Greek standards, but should be promoted further.

According to what has been presented to the AP by staff and students, most lecture courses are assessed only by a final exam while intermediate exams, evaluations of student assignments and other assessment modes were available only in a few cases.

The syllabi (course frameworks) describe correctly and in detail the contents as well as the assessment criteria methods, with a few exceptions of insufficient detail and mistakes.

Course material is generally available to students via an e-class platform but several staff members expressed their disagreement with this practice and said that they prefer not to upload teaching material. The AP suggests a revision of such approaches by the Department towards better compliance with HQA guidelines and other international standards. For example, for those professors that encourage and want to promote larger attendance and active note-taking in class they can still provide the bullet highlights of the individual lecture online expecting the students to attend class to get the rest of the details.

Student participation in course evaluations was relatively modest. The Department and academic staff make some efforts to promote engagement, but there is room for improvement, e.g., by evaluating experiences from other Departments and using any suitable approach to convince students on the importance of the involvement in course evaluations.

The Department does not assign an Academic Advisor to each student but has appointed a general advisor for each of the four axes of study. Students are not aware of the actual role and the services that an Academic Advisor can provide towards their success.

Panel judgement

Principle 3: Student- centred Learning, Teaching and Assessment	
Fully compliant	
Substantially compliant	X
Partially compliant	
Non-compliant	

Panel Recommendations

- Different modes of delivery should be included in all courses, for example learning communities (group work), writing intensive courses (include extensive literature review reports), and project-based learning exercises.
- Options for learning path selection by students should be exploited further by increasing the percentage of elective course in the curriculum.
- The DIAE should find ways to promote further student’s participation in course evaluations, taking advantage also of relevant experiences in other Departments.
- Attempt should be made to increase student attendance in courses since this usually to improve graduation rates
- The DIAE should assign a personal Academic Advisor to each student whose role and duties should be better explained to students.
- Access to course material by students via e-class should be encouraged further.

Principle 4: Student Admission, Progression, Recognition and Certification

INSTITUTIONS SHOULD DEVELOP AND APPLY PUBLISHED REGULATIONS COVERING ALL ASPECTS AND PHASES OF STUDIES (ADMISSION, PROGRESSION, RECOGNITION AND CERTIFICATION).

Institutions and academic units need to put in place both processes and tools to collect, manage and act on information regarding student progression.

Procedures concerning the award and recognition of higher education degrees, the duration of studies, rules ensuring students progression, terms and conditions for student mobility should be based on the institutional study regulations. Appropriate recognition procedures rely on institutional practice for recognition of credits among various European academic departments and Institutions, in line with the principles of the Lisbon Recognition Convention.

Graduation represents the culmination of the students study period. Students need to receive documentation explaining the qualification gained, including achieved learning outcomes and the context, level, content and status of the studies that were pursued and successfully completed (Diploma Supplement).

Study Programme compliance

The undergraduate students are admitted to the Department via the National Exams system and the number of entries is greater than the one requested by the Department. In the current year, 197 students were admitted which is far from the desired number.

The Department has been implementing an orientation process and advising week in the beginning of each academic year. The orientation process includes introducing first-year students to the administrative and teaching staff, and familiarizing them with the registration process, the program of study, the Computer Lab and the Library.

Student feedback demonstrated partial satisfaction with the orientation and advising process.

The cornerstone of student and staff mobility opportunities is the Erasmus Program. The process is facilitated by the establishment of the Erasmus Committee, which is responsible for initiating bilateral agreements with possible guest institutions, advising students and maintaining the Department's website regarding the Erasmus program. The Committee has signed 17 bilateral agreements; however the number of students participating in the program remains low. A mere two students participated in studies and seven for practical training during the academic year 2018-2019. While the Department does encourage student mobility, the number of students taking advantage of the opportunity remains low.

Students are required to complete a mandatory four-month internship, two months during the summer after the 3rd year and two months after the 4th year, in the aquaculture industry and other related companies, organizations and or agencies. Students value the training obtained during internship as the first step towards their undergraduate thesis but also towards the job market perspective.

The AP met with several representatives of the host companies/agencies who seemed satisfied with the quality and commitment of the participating students. However, they indicated that a two-month period is not enough for a satisfying training.

A mandatory undergraduate thesis is required for graduation and its requirements are clearly stated and made known to students in due time.

The European Credit Transfer System is applied in all courses and students fully receive the Diploma Supplement (DS) upon graduation.

Panel judgement

Principle 4: Student Admission, Progression, Recognition and Certification	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- The Department should make a more considerable effort to increase the number of students participating in the Erasmus Program.
- The Department should consider finding a way to continuously conduct the 4-month internship, and not in 2-month summer sessions, in other periods of the year as well.

Principle 5: Teaching Staff

INSTITUTIONS SHOULD ASSURE THEMSELVES OF THE QUALIFICATIONS AND COMPETENCE OF THE TEACHING STAFF. THEY SHOULD APPLY FAIR AND TRANSPARENT PROCESSES FOR THE RECRUITMENT AND DEVELOPMENT OF THE TEACHING STAFF.

The Institutions and their academic units have a major responsibility as to the standard of their teaching staff providing them with a supportive environment that promotes the advancement of their scientific work. In particular, the academic unit should:

- *set up and follow clear, transparent and fair processes for the recruitment of properly qualified staff and offer them conditions of employment that recognize the importance of teaching and research;*
- *offer opportunities and promote the professional development of the teaching staff;*
- *encourage scholarly activity to strengthen the link between education and research;*
- *encourage innovation in teaching methods and the use of new technologies;*
- *promote the increase of the volume and quality of the research output within the academic unit*
- *follow quality assurance processes for all staff members (with respect to attendance requirements, performance, self-assessment, training etc.);*
- *develop policies to attract highly qualified academic staff;*

Study Programme compliance

The DIAE teaching staff makes good use of the existing professional development opportunities so far given the lack of faculty. Nevertheless, the DIAE should increase its efforts towards this end following the recent and future addition of new faculty.

Specialised pedagogic training and use of technology is required to establish innovative and effective teaching methods for larger classes. These techniques, with the continually improving wireless network capabilities and mobile technology, can be utilized to deliver teaching material, examine and encourage student participation, and observe student attendance in lectures. In this framework, dedicated pedagogic training and technology workshops are required to facilitate, enhance and promote student participation and learning. Annual teaching awards for excellence and innovation in teaching, recognizing faculty efforts, are a must in the future.

Students were mostly satisfied with the academic staff teaching competence, open-mindedness, mentorship capabilities, cooperation and social interactions. The staff provides enough opportunities for mandatory practical training in the form of internships.

The DIAE has a history of established projects for academic staff collaboration with other universities, research laboratories and the local industry and stakeholders. This is an excellent practice that should be further cultivated, promoted and celebrated during award events.

The AP finds that the DIAE should have more flexibility in hiring temporary teaching personnel, suitable for specialised courses during sabbatical of its regular faculty. Also, training of staff on lab safety and the use of hazardous materials and in general safety rules in researching the aquatic environment is necessary.

Panel judgement

Principle 5: Teaching Staff	
Fully compliant	
Substantially compliant	X
Partially compliant	
Non-compliant	

Panel Recommendations

- The AP recommends that the UTH should establish a Teaching and Support Centre that will provide faculty with specialised seminars or short courses on academic pedagogics, on the use of novel teaching methods and technologies, and address issues related to students with special needs.
- Undergraduate courses could also be enriched by external/guest lecturers that can cover current issues.
- The DIAE should have more flexibility in hiring temporary teaching personnel suitable for specialised courses.
- Efforts should be made to further attract private donations for student and staff awards and scholarships and towards the organization of award events.

Principle 6: Learning Resources and Student Support

INSTITUTIONS SHOULD HAVE ADEQUATE FUNDING TO COVER TEACHING AND LEARNING NEEDS. THEY SHOULD –ON THE ONE HAND- PROVIDE SATISFACTORY INFRASTRUCTURE AND SERVICES FOR LEARNING AND STUDENT SUPPORT AND–ON THE OTHER HAND- FACILITATE DIRECT ACCESS TO THEM BY ESTABLISHING INTERNAL RULES TO THIS END (E.G. LECTURE ROOMS, LABORATORIES, LIBRARIES, NETWORKS, BOARDING, CAREER AND SOCIAL POLICY SERVICES ETC.).

Institutions and their academic units must have sufficient funding and means to support learning and academic activity in general, so that they can offer to students the best possible level of studies. The above means could include facilities such as libraries, study rooms, educational and scientific equipment, information and communications services, support or counselling services.

When allocating the available resources, the needs of all students must be taken into consideration (e.g. whether they are full-time or part-time students, employed or international students, students with disabilities) and the shift towards student-centred learning and the adoption of flexible modes of learning and teaching. Support activities and facilities may be organised in various ways, depending on the institutional context. However, the internal quality assurance ensures that all resources are appropriate, adequate, and accessible, and that students are informed about the services available to them.

In delivering support services the role of support and administrative staff is crucial and therefore they need to be qualified and have opportunities to develop their competences.

Study Programme compliance

The Department is housed jointly with the Department of Agriculture Crop Production and Rural Development in a spacious building, which has all the necessary facilities (classrooms, laboratories, IT infrastructure). The building provides a good working environment and is kept in a satisfactory condition. The laboratories visited by the AP seemed well organized and meet international safety standards. Laboratory equipment was very satisfactory and adequate, mostly used for research by graduates, PhD students and staff, but not spacious enough for conducting laboratory sessions for undergraduates. Some of the laboratories and working spaces seemed aged and should be maintained/renewed/enhanced/improved as appropriate.

Students are encouraged to communicate with their instructors, who are generally readily accessible by the students. However, an Academic Advisor is not assigned to the students from the first year of studies.

The Department has its library located in its premises and students expressed satisfaction with it, but the AP did not have the chance to visit it to comment on operation resources and how properly is equipped to provide an adequate computer learning environment with proper amenities for the students in between and after classes

A restaurant is also serving the students of the Department who wish to use it but they also have the choice of using the central restaurant in the city, which is, however, far in the city center. Public transportation to and from the city center to the campus was considered satisfactory by the students. Other support services, such as sports facilities, student clubs, and extracurricular activities are mainly offered by the University and are located far from the Department campus, mostly in the city center. There is an urgent need for additional housing, and University administration is putting efforts to obtain funds and property that will make

possible the construction of new dormitories for students. Presently, only first-year students are allowed to be housed in University dormitories and only for one year period.

The Administrative staff is composed of three persons but student satisfaction with the services provided is not at the desirable level.

Panel judgement

Principle 6: Learning Resources and Student Support	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- The Department should establish the appointment of an Academic Advisor, made known to incoming students during orientation.
- The Department should make efforts to secure more laboratory spaces so that students can be trained hands-on, not just by demonstration.
- Central administration should continue to seek ways to increase the capacity of dormitories to accommodate students, and not only for one year.
- Updated laboratory equipment and rundown lab spaces should be uplifted and made suitable for work with additional personnel.

Principle 7: Information Management

INSTITUTIONS BEAR FULL RESPONSIBILITY FOR COLLECTING, ANALYSING AND USING INFORMATION, AIMED AT THE EFFICIENT MANAGEMENT OF UNDERGRADUATE PROGRAMMES OF STUDY AND RELATED ACTIVITIES, IN AN INTEGRATED, EFFECTIVE AND EASILY ACCESSIBLE WAY.

Institutions are expected to establish and operate an information system for the management and monitoring of data concerning students, teaching staff, course structure and organisation, teaching and provision of services to students as well as to the academic community.

Reliable data is essential for accurate information and for decision making, as well as for identifying areas of smooth operation and areas for improvement. Effective procedures for collecting and analysing information on study programmes and other activities feed data into the internal system of quality assurance.

The information gathered depends, to some extent, on the type and mission of the Institution. The following are of interest:

- *key performance indicators*
- *student population profile*
- *student progression, success and drop-out rates*
- *student satisfaction with their programme(s)*
- *availability of learning resources and student support*
- *career paths of graduates*

A number of methods may be used for collecting information. It is important that students and staff are involved in providing and analyzing information and planning follow-up activities.

Study Programme compliance

Judging from the information made available to the AP, the UTH seems to have established an effective information system for collecting and managing data on students and their progress, teaching staff, and research projects. Nevertheless, there was an indication that students do not have adequate access to all necessary information.

Students' satisfaction with the programme of study is monitored mainly through the course assessment questionnaires, where participation is moderate. No additional method to assess overall reactions of students and graduates has been presented to the AP.

Overall, the data included in the annual progress reports and the websites of IEG and QAU show an adequate evaluation of information relevant to the programme of study and are properly used in a way to allow for relevant interpretations and comparisons.

In addition, the DIAE monitors sufficiently the career paths of graduates.

Panel judgement

Principle 7: Information Management	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- The DIAE should exploit additional ways to evaluate students' satisfaction with the programme of study and the Department.
- The DIAE should ensure adequate information of students regarding all aspects of their student life.

Principle 8: Public Information

INSTITUTIONS SHOULD PUBLISH INFORMATION ABOUT THEIR TEACHING AND ACADEMIC ACTIVITIES WHICH IS CLEAR, ACCURATE, OBJECTIVE, UP-TO-DATE AND READILY ACCESSIBLE.

*Information on Institution’s activities is useful for prospective and current students, graduates, other stakeholders and the public.
Therefore, institutions and their academic units provide information about their activities, including the programmes they offer, the intended learning outcomes, the qualifications awarded, the teaching, learning and assessment procedures used, the pass rates and the learning opportunities available to their students, as well as graduate employment information.*

Study Programme compliance

The DIAE website provides the necessary information in Greek regarding the academic unit and the study programme. Further, the DIAE site contains metrics on publishing records, funding, and student and staff mobility and internships. Nevertheless, the English version is way behind and in need of updating, especially taking into account the need to attract more Erasmus international students. The English published information needs to be identical to the Greek, not just a summary. The DIAE website is the mirror of the Department to the outside world and needs constant care and updating in order to deliver all relevant information to stakeholders and the general public.

The DIAE, in the era of Analytics, should publicly provide all available data via the DIAE website, in an easily interpretable form. However, the AP was unable to find metrics such as graduation rates, average GPAs, the total number of graduates and graduate employment information, and percent of graduates seeking further graduate education.

The AP noticed a sufficient outreach effort targeting the local community. During the site visit, the AP happily witnessed the “Prosvasi” initiative aiming to address issues of students with special needs.

Panel judgement

Principle 8: Public Information	
Fully compliant	
Substantially compliant	X
Partially compliant	
Non-compliant	

Panel Recommendations

- The English version of the website should be updated and include all the information available in the Greek version.
- More detailed metrics with quantitative information about the Department should be made more easily accessible.

- The DIAE should increase its outreach effort, for example:
 - Organize even more open-day visits to increase its visibility and recruit future students, but also to educate and raise awareness of the greater public in aspects related to fisheries, fish and their environment, and the aquatic environment.
 - Strategically plan more professional conferences, also inviting sponsorships by major fisheries and aquaculture industry players that will help promote DIAE activities.
 - Establish an exhibit room/area/museum within the DIAE premises with informative public displays relevant to DIAE, show-casing historical research DIAE activities.

Principle 9: On-going Monitoring and Periodic Internal Review of Programmes

INSTITUTIONS SHOULD HAVE IN PLACE AN INTERNAL QUALITY ASSURANCE SYSTEM FOR THE AUDIT AND ANNUAL INTERNAL REVIEW OF THEIR PROGRAMMES, SO AS TO ACHIEVE THE OBJECTIVES SET FOR THEM, THROUGH MONITORING AND AMENDMENTS, WITH A VIEW TO CONTINUOUS IMPROVEMENT. ANY ACTIONS TAKEN IN THE ABOVE CONTEXT SHOULD BE COMMUNICATED TO ALL PARTIES CONCERNED.

Regular monitoring, review and revision of study programmes aim to maintain the level of educational provision and to create a supportive and effective learning environment for students.

The above comprise the evaluation of:

- *the content of the programme in the light of the latest research in the given discipline, thus ensuring that the programme is up to date;*
- *the changing needs of society*
- *the students' workload, progression and completion;*
- *the effectiveness of the procedures for the assessment of students*
- *the students' expectations, needs and satisfaction in relation to the programme;*
- *the learning environment, support services and their fitness for purpose for the programme*

Programmes are reviewed and revised regularly involving students and other stakeholders. The information collected is analysed and the programme is adapted to ensure that it is up-to-date. Revised programme specifications are published.

Study Programme compliance

Several annual assessments have taken place since 2009. The annual reports record data derived from the students' questionnaires, the course reports on a semester basis and the individual staff records as set by QAU, and also assess strengths and weaknesses. Also, there was an External Evaluation conducted in the academic year 2010-2011 by HQA. All these reports are published on the Department and QAU's websites.

The Department has also drafted a strategic plan, complete with an action table, which draws on lessons from the last external assessment. The action table appears to be well-structured with specific goals and indicators. It contains a detailed timetable, responsible actor, specific target, and implementation information.

Students are not involved in the revision of the study programmes, after a student council decision not to take part in any of the Department's QA activities until now. However, the current president of the student body, who was present in the interview, assured the AP that from now on, students would be participating in such activities.

The alumni interviewed mentioned their useful contacts with the Department staff but they lack an organized association that would work closely with the Department on issues of the study programme revisions and student guidance. The external stakeholders expressed their support and excellent collaboration with the Department, which is based mostly on personal contacts.

Panel judgement

Principle 9: On-going Monitoring and Periodic Internal Review of Programmes	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- The students' participation and the involvement of alumni, external stakeholders and partners in the undergraduate study programme revisions should be enhanced and implemented within a structured procedure.
- Continue with the commitment to high standards of quality assurance.

Principle 10: Regular External Evaluation of Undergraduate Programmes

PROGRAMMES SHOULD REGULARLY UNDERGO EVALUATION BY COMMITTEES OF EXTERNAL EXPERTS SET BY HQA, AIMING AT ACCREDITATION. THE TERM OF VALIDITY OF THE ACCREDITATION IS DETERMINED BY HQA.

HQA is responsible for administrating the programme accreditation process which is realised as an external evaluation procedure, and implemented by a committee of independent experts. HQA grants accreditation of programmes, with a specific term of validity, following to which revision is required. The accreditation of the quality of the programmes acts as a means of verification of the compliance of the programme with the template's requirements, and as a catalyst for improvement, while opening new perspectives towards the international standing of the awarded degrees.

Both academic units and institutions participate in the regular external quality assurance process, while respecting the requirements of the legislative framework in which they operate.

The quality assurance, in this case the accreditation, is an on-going process that does not end with the external feedback, or report or its follow-up process within the Institution. Therefore, Institutions and their academic units ensure that the progress made since the last external quality assurance activity is taken into consideration when preparing for the next one.

Study Programme compliance

The Department is undergoing its first Accreditation procedure and has already undergone an external evaluation in 2011.

The AP found that the recommendations of the EEC were implemented by DIAE but no detailed description of the Department's response to these recommendations has been provided.

Nevertheless, the DIAE reported to have addressed many of the issues raised on that report and had considered and implemented several proposed recommendations, but the relevant information was not included in the official report but was provided in the department head PowerPoint presentation.

The DIAE should have provided a table with a point-by-point description of the recommendations that were properly fulfilled, including also percentages of compliance.

The AP acknowledges that improvement has been made since the external evaluation and the DIAE should continue its efforts to comply with the recommendations of the EEC fully.

Panel judgement

Principle 10: Regular External Evaluation of Undergraduate Programmes	
Fully compliant	
Substantially compliant	X
Partially compliant	
Non-compliant	

Panel Recommendations

- The DIAE should fully document their efforts to implement the relevant and still valid recommendations of the External Evaluation Committee.
- The DIAE should draw a strategic plan with detailed action plans and implementation timelines providing the roadmap for future accreditations/evaluations.

PART C: CONCLUSIONS

I. Features of Good Practice

- A satisfactory offered undergraduate study programme that promotes the development of individual skills, mainly in the areas of fisheries and aquaculture.
- A mandatory internship that promotes student's skills and connections with the labour market.
- Excellent relationships of students, alumni and stakeholders with faculty members.
- Efficient practice in arranging and sharing the available classroom and laboratory space and equipment to serve the educational and research needs of the Department.
- Clean, spacious, and pleasant environment, in both buildings and surrounding areas.
- Enthusiasm and professionalism of DIAE staff, and commitment to further improve their teaching and research activities.
- A significant amount of external research funds, positively affecting also educational purposes.
- Professional rights in the fields of ichthyology through the Geotechnical Chamber of Greece, as well as in fisheries studies.

II. Areas of Weakness

- Short English version of the website.
- Lack of space for students in specific laboratories.
- A large ratio of mandatory to elective courses.
- Non-assignment of personal Academic Advisors to students.
- Insufficient participation of students in course evaluations.
- Lack of alternative methods of course delivery and assessments.
- Limited amenities for students.

III. Recommendations for Follow-up Actions

Addressed to DIAE

- Fully document the implementation of all the relevant and still valid recommendations of the External Evaluation Committee.
- Reduce the total course number and decrease the ratio of mandatory to elective courses.
- Use a variety of delivery and assessment modes in teaching.
- Establish assignment of a personal Academic Advisor to students.
- Ensure adequate information regarding the improvement of all aspects of student life.
- Secure additional hands-on laboratory training of students.
- Promote students and staff mobility through the Erasmus Program.
- Continue efforts to ensure students' participation and involvement in IEG.
- Involve alumni, external stakeholders, and partners in revisions of the undergraduate study programme in a more structured way.
- Improve the Departmental websites and make sure that the English version is a complete mirror of the Greek.

- Increase outreach efforts to improve the visibility of research and teaching activities, also taking advantage of social media.
- Pursue hiring personnel with expertise reflecting more accurately the programme of study.
- Establish a student and staff awards system promoting excellence.
- Draw a strategic plan with detailed action plans and implementation timelines, providing the roadmap for future accreditations/evaluations.

Addressed to UTH

- The UTH should establish a Teaching and Support Centre that will provide faculty with specialised seminars or short courses on academic pedagogics, on the use of novel teaching methods and technologies, and address issues related to students with special needs.
- Central administration should continue to seek ways to increase the capacity of dormitories to accommodate students, and not only for one year.

Addressed to the State Authorities

- Provide adequate resources for improving laboratory and other departmental infrastructure.

IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: 4, 6, 7, 9

The Principles where substantial compliance has been achieved are: 1, 2, 3, 5, 8, 10

The Principles where partial compliance has been achieved are: none

The Principles where failure of compliance was identified are: none

Overall Judgement	
Fully compliant	
Substantially compliant	X
Partially compliant	
Non-compliant	

The Accreditation Panel agrees that this Programme leads to a Level 7 Qualification according to the National & European Qualifications Network (Integrated Master)	YES	NO
	X	

The members of the Accreditation Panel for the UGP (Integrated Master) of Ichthyology & Aquatic Environment of the University of Thessaly

Name and Surname

Signature

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