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Kosovo Accreditation Agency



UNIVERSITY OF PRISHTINA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
Department of Biology

BACHELOR OF SCIENCE in MOLECULAR BIOLOGY

Study Programme Accreditation

REPORT OF THE EXPERT TEAM

The 15th of March, 2023, Prishtina

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1. INTRODUCTION

1.1. Context

Date of site visit: March 15, 2023

Expert Team (ET) members:

- Professor *Mladen Krajacic*, PhD
- Ms *Delia Lupescu*, Student Expert

Coordinator from Kosovo Accreditation Agency (KAA):

- *Leona Kovaçi*, Senior Officer for Evaluation and Monitoring

Sources of information for the Report:

- Self-evaluation report by the Faculty of Mathematics and Natural Sciences
- Syllabus Documents for all the courses of the study programme
- CV Documents for all the teaching staff included in the study programme

Evidences requested additionally by the ET:

- Code of ethics
- The appeal procedure
- The transfer procedure/rules

Criteria used for institutional and program evaluations

- Standards and performance indicators for external evaluation according to the *KAA Accreditation Manual*
- Compliance with the overall mission statement of the *Faculty*, and the *University*
- Consistency with the *National Qualifications Framework*
- Consistency with the Framework for Qualifications of the *European Higher Education Area*

1.2. Site visit schedule – The 15th of March, 2023

Time	Meeting and Participants
09:00 – 09:45	Meeting with the management of the faculty where the programme is integrated <i>Idriz Vehapi</i> (Dean of the Faculty) <i>Ferdije Zhushi Etemi</i> (Head of Department) <i>Arben Haziri</i> (Vice-Dean of the Faculty) <i>Kajtaž Bllaca</i> (Vice-Dean of the Faculty) <i>Ferim Gashi</i> (Vice-Dean of the Faculty)
09:55 – 10:40	Meeting with quality assurance representatives and administrative staff <i>Besnik Loxha</i> (University Office for Quality Assurance) <i>Illir Mazreku</i> (Faculty coordinator for quality assurance) <i>Artan Alidema</i>
10:50 – 11:50	Meeting with the heads of the study programme Molecular Biology BSc Assistant Professor <i>Illir Mazreku</i> , PhD Professor <i>Kemajl Bislimi</i> , PhD Assistant Professor <i>Lulzim Millaku</i> , PhD
11:50 – 12:50	Lunch break (provided at the evaluation site)
12:50 – 13:35	Meeting with teaching staff Associate Professor <i>Bekim Gashi</i> , PhD Assistant <i>Naim Berisha</i> , PhD Associate Professor <i>Avni Berisha</i> , PhD Assistant <i>Kaltrina Jusufi</i> , PhD Assistant <i>Driton Vela</i> , PhD
13:40 – 14:40	Visiting Facilities
14:45 – 15:20	Meeting with employers of graduates and external stakeholders <i>Armend Cana</i> (AUV) <i>Sokol Deda</i> , PhD (Agency of Forensic) <i>Bislim Bislimi</i> (Lab Tirana)
15:25 – 15:35	Internal meeting of KAA staff and experts
15:35 – 15:45	Closing meeting with the management of the faculty and program

1.3. A brief overview of the institution under evaluation

The University of Prishtina is the largest public higher education in Kosovo. The studies in mathematics and natural sciences started in 1960 at the Faculty of Philosophy. Since the Faculty of Mathematics and Natural Sciences was founded in 1971, the five departments of the Faculty have been responsible for research and higher education activities in mathematics, physics, chemistry, geography and biology. This is the only research and higher education institution in maths and natural sciences in the country.

Following the establishment of the Republic of Kosovo, the Faculty has changed study programmes trying to follow the European standards. Accordingly, an agreement with the Bologna Declaration was achieved in 2001. All the formal policies, guidelines and regulations are in agreement with the University of Prishtina Statute.

Study programmes offered by the Department of Biology, a constitutive unit of the Faculty, encompass:

Bachelor study programme in

Biology

Ecology and Environmental Protection

Master study programme in

Biology

Ecology and Environmental Protection

and

PhD study programme in

Biology of Organisms and Ecology

The Department of Biology has recently applied for accreditation of the new *Study Programme in Molecular Biology – Bachelor of Science Level*.

2. PROGRAM EVALUATION

2.1. Mission, Objectives and Administration

In concordance with the Faculty mission and objectives, the Department of Biology develops academic education and scientific research in the field of biology.

Bachelor's study programmes in both *General Biology*, and *Ecology and Environmental Protection*, equip students with a general knowledge and basic proficiency in a range of fundamental biology disciplines, or bring subjects focused toward ecological and environmental topics, respectively.

The Master Study Programmes have to enlarge and improve knowledge acquired at the bachelor study level. It should provide advanced scientific knowledge and professional skills in botany and zoology, including ecological aspects and environmental protection.

Through the past, recommendations addressed in the previous accreditation procedures have been taken into account and a number of improvements have been implemented. As a result, a significant progress concerning quality of the study programmes, teaching courses and corresponded lecturers/researchers is certainly obvious.

The Department of Biology, supported by Department of Chemistry, Physics and Mathematics, as well as by the Faculty management, decided recently to response the challenges of contemporary social circumstances by applying for a new bachelor study programme in ***Molecular Biology***. Furthermore, the proposal has been created with the support of the Faculty of Medicine and the Faculty of Agriculture and Veterinary, which raised the application to the level of the university project.

The aim of the study programme is to make students competent in the most attractive approach in biology, that is actually indivisible from medicine, veterinary, agriculture, forestry, biotechnology and pharmacy, and could be considered a front-line of what is nowadays called life sciences. In the scope of molecular biology, there is a number of topics that have regularly been awarded with Nobel Prizes, no matter they are named Nobel Prizes in Physiology or Medicine, or Nobel Prizes in Chemistry. Following pioneering around the middle of the 20th century when fundamental processes and principles of life were discovered, molecular biology has not moved down from the cutting-age of contemporary science.

Graduates of the study programme in molecular biology will be prepared for professional careers in governmental and non-governmental organisations, as well as private enterprises. The graduates are expected to deal with biological processes, structures and systems, by interpreting and evaluating biological data, as well as resolving practical problems in the respected field. They will also be ready to develop further their skills and specialise towards biomedicine, biotechnology, clinical and environmental biochemistry, biophysics and forensic which are in the broad realm of molecular biology.

Demand for molecular biology experts is increasing and is expected to do so as the society realises the importance of molecular biology in facing main global threats for mankind such as pandemics, antibiotic resistance, demand for new therapeutics, food shortage or environmental issues. That is why applying with this new study programme would certainly be beneficial for Kosovo society.

The aim of the programme is properly presented in the Self Evaluation Report. Intended learning outcomes are consistent with both national and European qualification frameworks. The programme follows institutional (Faculty/University) policies and regulations. Procedural and academic issues comply with general ethical principles in research, teaching and other academic and administrative activities. They are publicly available to both staff and students.

Compliance level: Fully compliant

ET recommendations:

1. *It is recommended to emphasise the collaboration with other faculties of the University of Prishtina, bringing signed agreements with collaborating institutions in the Self Evaluation Report*

2.2. Quality Management

The quality management provisions for this program are the same as those for the entire University of Prishtina `Hasan Prishtina` (UP). The public university has a complex functioning QA system, however the SER could have better reflect its strong points as well as indicate the plan for adapting this university-level QA system to the specifics of the program, if that is the case. In the future, the SER can be improved by a better reflection of the QA system characteristics in the text – details offered in connection with the KAA standards could be more on point.

The new proposed study program will follow the rules and regulations for quality assurance, as approved by the Senate of the university.

According to the SER, the actors responsible for quality assurance (QA) at the level of UP include a central commission for quality assurance and evaluation at university level and a committee for quality assurance and assessment at the level of each academic unit. The rector is vouching for the prior conditions for QA activities and ensures the resources for them (e.g. financial) and is a guarantee of the institutional desire to continuously improve the quality of the study programs.

Observation: Students are involved in all decision making and consultative committees and structures of the university. However, the SER mentions that the student representative member within the central committee for quality assurance and evaluation, should have an average grade of 8. The international practices in student participation in decision-making usually recommend excluding any such conditions/limitations for student representatives. Moreover, they should be elected/chosen by the student body to represent in these advisory bodies the vision and voice of the students, not appointed/named by the Rector/senate/university.

UP has a developed QA system that includes several mechanisms for collecting feedback: questionnaires for academic staff, for the administrative employees, for students and instruments to verify the quality of research papers. Moreover, data about student performance is collected: percentages of passing exams, organization of colloquiums, duration of studies etc. [SER, p.19]. Other QA mechanisms are: periodical revision of study programs. These questionnaires address questions referring to all sorts of aspects of the academic life: the faculty staff, the teaching and learning conditions, the infrastructure, the scientific research activity, the nature of the administrative jobs and the associated responsibilities etc. Student questionnaires are applied periodically (at the end of each semester).

At this point, the QA system does not include a self-evaluation phase for the academic, research and administrative staff, nor is it clear if the existing data-collecting instruments (e.g. the surveys) cover all aspects of student lives (standard 2.4). The program leaders should consider developing, along with the QA structures of the university and department, questionnaires for employers – especially those who will be involved in offering internships as surveys should also cover these internships - as well as graduates, when the program will have its first graduates.

Based on the survey results, there are periodical reports prepared – e.g. the SER is prepared every three/five years for the KAA. Results of internal quality assurance system and external evaluations are considered for the development of the study program as they are used to plan follow-up actions. However, they are currently not publicly communicated. A short summary of the results is included in the periodical report of the Rector. Considering that the UP is a public university funded from public funds, the expert team stresses the importance of publishing QA reports as part of the transparency efforts and accountability to the general public. Publishing reports and the plans to improve the situations indicated within the reports, helps the academic community to grow confidence in the QA system and thus motivates them to be more involved in implementing it.

In conclusion, if the heads of the program and the QA responsible for the department will guarantee that the university-level regulations are followed for the new program, this will provide a very good start for the program. However, the expert team recommends that the heads of the program should consider if/how the QA provisions could be adapted to the specifics of the study program, monitor the implementation of the QA processes and consider, periodically, the ways in which they could be revised to better serve the aim of continuously improving the study program. One idea would be to go further than the KAA standards and set some quality indicators specific to this program, that could refer to all aspects of the program and focus on the students progress (e.g. student success rates in exams, share of students graduating on time etc.).

Compliance level: Partially compliant

ET recommendations:

1. *Consider developing surveys for evaluating the quality of internships, as well as questionnaires for employers and graduates of this programme (when the first students will graduate you can ask questions specific to this programme);*
2. *Consider publishing the reports (or summaries of the reports) generated as results of the internal quality assurance activity along with the plan to follow-up on the results;*
3. *Consider addressing the weaknesses and threats related to the QA system identified in the SER;*
4. *Consider developing instruments to measure if students reach the intended pre-set learning outcomes of each discipline and the study program, in total.*

2.3. Academic Staff

Molecular biology is not a branch of biology, like genetics, microbiology, botany, zoology etc. It is much more a wishful approach in any branch of contemporary biological science that is necessary to make a research-result more relevant. In some cases, molecular approach is actually the only way to reveal relevant results. Although certainly being a part of biology, its border line is uncertain towards more fundamental fields of chemistry (biochemistry), physics (biophysics) and mathematics (biostatistics, bioinformatics), as well as more applied fields of medicine (biomedicine), veterinary and biotechnology (genetic engineering). Experts in molecular biology fit perfectly in a number of interdisciplinary areas of great human interest. That is why molecular biology could partly be considered interdisciplinary.

In agreement with, the study programme is properly designed as a collaboration project encompassing not only respective departments of the *Faculty of Mathematics and Natural Sciences*, but also the *Faculty of Medicine* and *Faculty of Agriculture and Veterinary*. However, that outstanding feature of the study programme is not properly announced and emphasised. Just contrary, the *Department of Biology* claims to have enough qualified staff for the *Study Programme in Molecular Biology*. In the Self Evaluation Report there is a statement that the programme is covered 100% by full-time employees, and “the courses that are not from the field of biology” are covered by full-time staff of other departments of the Faculty, as well as from other faculties of the University. Accordingly, the teaching staff is presented encompassing assistants and professors of the Department of Biology only. This is absolutely unreasonable. The study programme is represented by the particular courses, and it is not a matter are they from the field of biology or not. The particular courses that make the study programme have to be accompanied with respective syllabuses and respective lectures, and every lecturer has to be represented by a respected *Curriculum Vitae* document. In the end, it is good to emphasise that human physiology, human anatomy, biotests employed in medicine, human endocrinology, and molecular physiology of organ systems are not medicine topics – this is pure biology, although necessary to be employed in medicine. Similarly, medical biochemistry and tumour biochemistry can be considered topics inside biochemistry/molecular biology amalgam.

Furthermore, that bizarre presentation of the academic staff was accomplished inconsistently concerning number of the academic staff and their academic positions – e.g., the same people are considered assistant professors or associate professors in different documents, or different chapters of the same document.

Instead of bringing restrained and shy information on participation of other departments/faculties, the collaboration should have been strongly emphasised because this is a strength and not a weakness. It does certainly contribute to the quality of the study programme. Moreover, it contributes the employability of graduates, primarily by breaking through an artificial barrier between biology and medicine, improperly created in some academic communities. Finally, the study programme as a university project is expected to be

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more attractive, drawing attention of candidates who are interested in medical subjects, but not clinical work. After the three initial years of the programme have past, in the re-accreditation procedure it would be proper to present all the lecturers, clearly dividing a list according to affiliation – to those who are affiliated to the Department of Biology, those who are affiliated to other departments of the Faculty (Chemistry, Physics, Mathematics), and those who belong to other faculties of the University (Medicine, Agronomy and Veterinary). In conclusion, the Faculty of Mathematics and Natural Sciences is suggested to claim that it recruits more than 50% of its own full-time employees in the study programme (which is enough, fulfilling entirely the *Standard 3.4.* of the accreditation criteria).

In the Self Evaluation Assessment, the entire academic staff is considered actively involved in the preparation of the new study programme. In fact, every lecturer is responsible just for his/her own CV document, and a syllabus of a respective course. Just a few people are responsible for the whole presentation of the study programme: Heads of the Study Programme, a Head of Department and a Dean of the Faculty. Those people are expected to coordinate the preparation process and prevent any failure. Unfortunately, there were some failures, not only concerning missing CV documents and missing syllabuses. A few documents were not written in English, and a number of them do not bring a content of a practical work (practicum, exercises). There is also one syllabus that miss both lecture and practical work content. In spite of recommendations raised in the previous accreditation processes, some CV documents bring papers published in scientific journals together with those published in conference proceedings (low-impact conferences with low admission criteria). These two sorts of publications are not of equal value; thus, they have to be presented separately.

Some courses have been accredited to assistants – young employees who have completed their PhD level, but have not received assistant professor position. Moreover, some of them are lecturers of three courses, and loaded with significant number of teaching hours. In the particular case, the young lecturer is a research-intensive assistant with a prominent curriculum. However, it is recommended to make arrangements like that only exceptionally, and not regularly. Young academic staff members are not allowed to be overloaded with too many teaching hours and to many different courses. It does not make wishful academic circumstances, necessary for optimal research skills development.

The academic staff comply with the legal requirements, regulated by the university statute and related acts. Unfortunately, the formal criteria for selection, hiring and advancement of the academic staff have obviously been far too low in the past. The number of full professors (14) and associate professors (5) significantly dominates the number of assistant professors (3) and assistants (9). This *up-side-down* pyramid is getting worse year by year during the past decade, representing an unnatural and improper personal structure of the Department of Biology. It means that the Department of Biology still has capacities to improve its quality, by insisting on higher promotional criteria. This emerges as an important issue particularly when molecular biology is in question. Some older professors, who are not able to update their course descriptions and improve educational process content, have to be excepted from study

programme in molecular biology. They are not a proper academic staff to be included in the most dynamical area of contemporary science.

In spite of low official criteria, it should be emphasised that things move forward. A growing share of an advanced teaching staff is undoubtful. The younger employees, proficient in English, skilled in contemporary research, and experienced in international collaborations, are continuously getting more and more represented. The Department (and the Faculty) has to continue shaping its own criteria, that are selective enough to ensure further progress towards European research and higher-education standards.

Compliance level: Substantially compliant

ET recommendations:

- 1. The official promotional criteria should evolve being particularly stronger and more demanding concerning quality (not quantity – publication numbering), including a journal ranking, a publication impact and personal contribution of an author. Though this is not entirely the responsibility of the UP, the university can lobby the Ministry of Education in this regard and can find own ways of paying back the teachers with high performance (no matter if this performance is in teaching, research or administrative work)*
- 2. Expectations from younger and mid-edge teaching staff are expected to be even more demanding*
- 3. Older teaching staff, disable to develop a teaching content of their courses, and align it with contemporary knowledge in the field, has to be excepted from study programme in molecular biology*

2.4. Educational Process Content

The study program complies with the National Qualifications Framework and the Framework for Qualifications of the European Higher Education Area. The interviews during the study-visit indicated the need for Molecular Biology specialists both in the country and abroad. However, it was mentioned that the BA level graduates will need an extra approval from the Ministry of Health before applying for a job. The heads of the program could collaborate with the potential employers to try to prevent this from becoming a barrier in the career development of the graduates of this program.

By proposing this new program, UP aims to become a competitive education provider in the region. The experts team recommend using this occasion as an opportunity to develop this program as a brand of the university. There are favourable conditions that will help reach this objective. One of them is the important partnership between the Department of Biology (within the Faculty of Mathematics and Natural Sciences) and the Department of Medicine for

the development and implementation of this program. The second is the interinstitutional agreement with the University of Zagreb for international mobilities and academic cooperation. And the third one is the support shown for this program from the part of several potential employers for the future graduates of the program. Therefore, the expert team supports the initiative of the heads of the program to continue their efforts in promoting this program and then, on the long term, developing a new MA program in the field. Offering this MA program in English would be a good idea as it could transform this program into an attractive educational opportunity for any graduate of BA level in the field from the region.

The Syllabus is presented to students, at the beginning of the semester, in the first class of each discipline, including the expected learning outcomes. However, there is much more to be done to build a student-teacher relationship as a partnership. As mentioned in section 5, we recommend that teachers are given the opportunity to develop teaching skills necessary to implement teaching methods that are flexible, meet students needs, ensure an interactive teaching-learning process in which the student feels like an active partner. In order to reach this desiderate, one could also involve students in choosing a certain percentage of the subjects to be discussed in the classroom, the assessment methods, offer continuous frequent feedback regarding the student progress etc.

Student assessment is defined by the University rules and regulations (including the Statute of the University of Pristina) and the exam schedule is published on the university website. The assessment methods are communicated to students, at the beginning of the semester, along with the syllabus. However, more could be done to guarantee that they are conducted fairly and objectively and that they are appropriate for different forms of learning sought and for testing the progress towards the pre-set learning outcomes.

The university has to do more about defining a standard of work required for different grades and compare it, to be consistent over time and comparable between courses (standard 4.9). Policies and procedures need to include actions to be taken if any situation occurs in which the standard of student achievement is inadequate or inconsistently assessed (standard 4.10).

The programme in *Molecular Biology* is comparable with the relative study programmes and curricula delivered in the EHEA.

“Classical” branches in the field of biology, and related courses, dominate in the first academic year of the study programme. Botany and zoology, for example, are properly shortened bringing just a general basics in those “traditional” biology stuff. Moreover, general chemistry, as well as biology-implemented physics and mathematics is delivered. Later, the study programme is getting more loaded with courses containing molecular biology and biochemistry elements, or represent molecular genetics and biochemistry itself. Elective courses are getting more represented and their proportion, in relation to mandatory courses, is generally well assigned. The curriculum is considered to provide disciplines in a logical flow and meet the definition and determination of general biological competences, specific molecular biology competences, as well as competences specifically directed to related interdisciplinary stuff, such as general, medicinal and veterinary biochemistry, biomedicine, molecular diagnostics, bioinformatics etc. Course lectures are accompanied with a respective

laboratory practical work, theoretical exercise or seminar. Vast majority of the disciplines within the curriculum have proper syllabuses which comprise the discipline's objectives, the basic lecture- and practicum-content, learning outcomes, distribution of classes, assessment principles and minimal bibliography.

However, some syllabuses need a revision to bring a modern, molecular biology related content. The worst example of inappropriate syllabus is the one accompanied to the course in *Algology and mycology*. It represents a chaos, consisted of a number of awfully incorrect biological facts, in strong conflict with recent fundamentals in modern biological science of 21st century. Heads of the programme, supported by Head of Department and Dean of the Faculty have to be aware not include syllabuses like that in the next accreditation process. As mentioned above, authors of such syllabuses have to be excepted from the *Molecular Biology Study Programme*.

The *Faculty of Mathematics and Natural Sciences* signed a cooperation agreement with the *Kosovo Forensic Agency* in order to support laboratory skills development. Furthermore, the Agency, which is interested in the study programme graduates, has disposed to the Faculty some used but still valuable laboratory equipment for students' practical training. This represents an outstanding example of fruitful intersectoral symbiosis between academic and non-academic beneficiary institution. A respective practical internship is not explicitly mentioned in the programme courses list; thus, it is presumed to be a constitutive aspect of various study courses.

Taking into consideration a small number of teaching assistants, a questionable teaching-hours load of the academic staff, and a need of dividing student in small working groups, the expert team is concerned about proper performance of the practical student work – it must certainly not be a theoretic explanation of a methodology in molecular biology.

It is recommended to reconsider if ECTS were properly allocated. As now it seems rather an artificial split of the credits among the disciplines, than an allocation reflecting the expected workload for each of them. The Expert Team reminds you that the ECTS allocation should reflect the workload required from a student to successfully pass the final exam of the discipline. This workload should cover the face-to-face interaction, the practical work, the individual study and the consultation hours.

Compliance level: Substantially compliant

ET recommendations:

1. *Further efforts and commitment would be necessary by preparing syllabuses in terms of making them consistent. Every syllabus document should bring both lectures content and practical work content of the respective course. A practical work content should be explained for every block-hour, bringing a particular methodology and specifying biochemical compounds or biological stuff that students will be dealing with. Every lecturer is responsible for his/her own syllabus, but a Head of Programme, a Head of Department and a Dean of the Faculty are responsible in the end that all the documents are completed and are consistent.*

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2. *No one single unprofessional syllabus is allowed (related to mandatory or elective course), bringing content that has not been updated to recent biology knowledge.*
3. *It is recommended to reconsider once more if ECTS credits have been properly allocated. After the first students are enrolled, they can be involved in revising the ECTS allocation so that it best reflects the workload for each discipline.*
4. *Practical work with students is recommended to be laboratory work as much as possible, and theoretical explanation or principle demonstration only exceptionally.*
5. *Develop mechanisms for verifying standards of student achievement.*
6. *Develop and implement policies and procedures that deal with situations in which the standards of student achievement are inadequate or inconsistently assessed.*

2.5. Students

The Molecular Biology BSc study programme follows the rules and regulations of the University of Prishtina, including the admission procedures. There is a clear and formally adopted admission procedure, at UP level, which is consistently and fairly applied for all potential students. The procedures include a step for verification of the fact that all applicants have graduated from high school and possess a graduation diploma or equivalent document. They will be applied for this new program and the expert team is confident that the heads of the program will follow them through.

The study programme is designed for 30 students with small study groups planned (8-12 students/group) in order to ensure an effective and interactive teaching and learning process. Though the dimensions of the study groups are important to ensure the reach of this desiderate, there are other elements to consider also: e.g. choosing teaching methods that involve students actively in the learning process.

According to the SER, the only feedback students will receive on their performance are the results to exams, which they receive in maximum 10 days from the test. They will be recorded in the SEMS electronic system. Ongoing feedback regarding the progress of the student towards the expected learning outcomes would help the student adopt some adjusting strategies before the final exam.

Some flexibility will be offered – according to the UP procedures - in terms of prolonging the deadlines if the student submits a request to the Senate. This kind of flexibility should be automatically shown to students in difficult situations – e.g. students who lost a parent or a close relative, students who missed classes/lectures/seminars due to being hospitalized etc.

To ensure the work of students is original, within UP, supervisors are responsible to check student's progress and final papers. The UP Code of Ethics might regulate the procedures

for this, but the expert team could not assess this point as the Code of Ethics was not provided as an annex to the SER. As learnt from international experience, prevention is better than correction, in this case, thus more could be done to teach students how to conduct ethical research and paper-writing so that they avoid plagiarism (e.g. through correct referencing) or any other unethical conducts.

Students' rights and regulations are part of the agreement signed with the UP. They include the appeal procedure. the expert team could not assess this point as the appeal procedure was not provided as an annex to the SER.

The study programme follows the rules and regulations of the UP, including that for Transfer and Mobility. the expert team could not assess this point as the document regulating the conditions for transferring was not provided as an annex to the SER.

Compliance level: Substantially compliant

ET recommendations:

1. *Include completion rates and other student progress indicators in the quality indicators used to evaluate the study program;*
2. *Motivate academic staff to offer ongoing feedback to students regarding their progress towards the learning outcomes of each discipline, so they can adopt strategies to redress their progress if not optimal;*
3. *Motivate and support academic staff to adopt teaching strategies that are interactive and stimulate student active participation in learning (consider teachers' training for this).*
4. *Consider offering students the possibility to follow academic writing courses or lectures on academic ethics in order to help students gain the competencies they need in order to avoid unethical conducts when preparing a paper or a final thesis.*

2.6. Research

The proposal of the *Study Programme in Molecular Biology* revealed in a logical flow as a consequence of permanent quality improvement of the respective research aspects at the *Department of Biology*.

Although consequences of miserable promotion criteria in the past can still be observed, from the perspective of the European Research Area, the *Faculty of Mathematics and Natural Sciences*, including the *Department of Biology*, have made a significant progress towards being a research-intensive institution in the future. In fact, official promotion criteria are obviously far too weak even nowadays, creating an up-side-down pyramid with “too many chiefs and not enough Indians”. The *Department of Biology* suffers a significant lack of young research fellows who are the main productive engine of every research-intensive university.

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Unfortunately, an inappropriate academic environment does not contribute in shaping proper research expectations from academic staff members. As long as the status quo has been maintained from above (university and ministry level), all the statements concerning European orientation could not be fully reliable. The research objectives proclaimed by both the Faculty and the University, as well as all the policies established to promote research activities, would be supported by stronger promotion criteria, insisting primarily on higher quality and impact of the published articles, as well as personal authors' contribution. Insufficient financial support is another threat that does not play in favour of research prosperity.

At the same time, it has to be emphasised that the Faculty, and the *Department of Biology* are certainly among the most internationally recognised scientific institutions in the Republic of Kosovo.

In spite of unfavourable conditions, some staff-members have made a significant step forward during the last decade. They have succeeded to continuously participate in some international collaborations, using project-funds to equip their laboratories and improve their research environment, as well as the learning environment for their students. They have published scientific papers in more prominent journals, and above all, they have included younger colleagues in their research projects. By mentoring them, they have supported, in due time, a development of their research skills. A number of successful collaborative research arrangements with colleagues from the international community have been developed. Another statement has to be emphasised – the Expert Team is convinced that this is recently not a result of some individual effort anymore; research progress is now the rule and not an exception and one can feel that it is strongly supported by the Department, and the Faculty management.

The Self Evaluation Report brings a long list of projects that have been completed or being ongoing in the last five years. Among thirteen projects, which is quite an impressive number, there is a significant share of those funded by different foundations and institutions abroad or by international collaboration projects:

- German Academic Exchange Service (DAAD) – two research projects in total
- US Embassy in Prishtina – two research projects in total
- Austrian Exchange Agency (partner: University of Salzburg)
- Austrian Development Cooperation, HERAS Programme (partner: University of Salzburg) – three research projects in total
- European Union Office in Kosovo – Cross-border Cooperation Programme
- University of Milan

We can witness very impressive scientific productivity of a number of professors affiliated to the Department of Biology. In total, 39 research papers have been published in the last five years. It is important to emphasised that the publications are co-authored by young research fellows and a number of them are published with an international authorship. Furthermore, a growing number of papers has been publishing in more prominent journals, compared to those that had been prevalent earlier. The number of those journals is expected to be increased further, in relation to local, irrelevant journals (even those that are issued abroad

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– foreign does not necessarily mean international). As we have learned from a majority of CV-documents, the academic staff started (not all of them) to differentiate articles, published in scientific journals, from easy-publishable conference proceedings, and especially abstracts. Some of them bring information on an impact factor of the respective journal. No doubt, the proper categorisation of scientific achievement is going to improve the research quality. The next step would be to recognise the real personal contribution of every author mentioned on the co-authors list. Of course, a contribution could not be the same by every author mentioned on a longer (more than two or three) co-authors list.

Some important positive trends have been triggered, and a progress at the Department of Biology is appreciable. The positive movements are expected to be irreversible, in fact, the process is expected to be accelerated and intensified. Sufficient support from the University, as well as from overall Kosovo society, would significantly help further progress in the forthcoming years. However, the progress must not result from an individual enthusiasm of some staff members. It has to be institutionalised, at least by related regulations, established at the department level.

Compliance level: Substantially compliant

ET recommendations:

1. *The progress, recognisable during several past years, is expected to continued – when considering Study Programme in Molecular Biology, it is particularly important to expect any lecturer who is not able to follow high international criteria and demands in updating to very recent achievements in this dynamic field of science.*
2. *Instead of publications numbering, further efforts are expected in pushing high quality and recognising a personal contribution of each co-author. A first-author-status (for Assistant Professor position) and a main/corresponding-author-status (for Full Professor position) has to be crucial, even postulated in a promotion procedure.*
3. *Official promotion criteria, established by the Ministry, have to be significantly improved.*
4. *The Faculty and the Department have to keep insisting on significantly higher expectations from the academic staff by announcing their own regulations (no matter what are the official criteria like).*

2.7. Infrastructure and Resources

As long as the *Faculty of Mathematics and Natural Sciences*, including the *Department of Biology* has been settled in the old building, implementation of study programmes was substantially ensured concerning overall infrastructure and resources. Number of teaching- and seminar-rooms, as well as laboratories, was sufficient for students involved in the study programmes delivered so far. Laboratory equipment supply has continuously been increasing, and chemical reagents seemed more available year after year. Some parts of the Department

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did not look very fancy, but this was certainly not the crucial bottleneck in the study programme development.

There are some laboratories that look restricted in space, but fully equipped for both research and superb laboratory work with students. As stated above (*Academic Staff- and Research-chapter*), those positive examples resulted from individual achievements and enthusiasm of some outstanding staff-members. Fortunately, it is obvious and could be felt during the accreditation process that this is nowadays an official state and attitude of the Faculty/Department government. The equipping of laboratories and teaching rooms is even more intensive – it is amazing how many new items of the laboratory equipment appeared at the Department since the last accreditation visit.

Technician staff is not sufficient. At least some of them would be welcomed at the Department, to ensure a wishful research-intensive and high-quality educational environment, particularly when the new study programme is in question.

A modest faculty library should be supplied with some recent international titles (written in English), and those titles should be exclusively included in the learning process, as basic or additional courses-literature. The University library, situated next to the Faculty in the scope of the campus, is probably not equipped with items necessary to support the study programme in biology.

The *Faculty of Mathematics and Natural Sciences* has obviously been recognised, as an important STEM (*Science-Technology-Engineering-Mathematics*) component of every modern society. As a result, a new Faculty building is raising, in the scope of the new university campus and will be a significant support for the future research and high-education activities. It comes at the right moment, because by establishing the new *Study Programme in Molecular Biology*, it will be welcomed as never before.

Compliance level: Substantially compliant

ET recommendations:

1. *According to the Expert Team opinion, an infrastructure and resources, not only belonging to departments of the Faculty but also premises of the Faculty of Medicine and the Faculty of Agriculture and Veterinary, included in the programme completion, should be presented and even included (Faculty of Medicine, participating with several courses) in the site visit in the scope of the next accreditation process.*

3. FINAL RECOMMENDATION OF THE ET

The Faculty of Mathematics and Natural Sciences, including the Department of Biology, is certainly among the most internationally recognised scientific institutions in the Republic of Kosovo. In spite of unfavourable conditions, some staff-members have made a

significant step forward during the last decade. Nowadays, it is not a result of some individual effort anymore; research progress is now considered the rule and not an exception and is markedly supported by the Department, and the Faculty management.

The Faculty has obviously been recognised as an important university component and a prominent developing element of Kosovo society. As a result, a new Faculty building is rising, in the scope of the new university campus and will be a significant support for the future research and high-education activities. It comes at the right moment, because by establishing the new study programme, it will be welcomed as never before.

The Bachelor Study Programme in Molecular Biology was revealed as a natural flow, resulting from continuous improvement of research and high-education processes at the Faculty. The idea is strongly supported by the Expert Team, as well as proper strategic solution – to deliver the new study programme with a help (in a collaboration) with other departments of the Faculty, as well as other faculties of the University. In this way, an interdisciplinary character of molecular biology is proclaimed which makes the related study programme more attractive.

We are convinced that the proposed programme has great potential to be one of the prominent “brands” of the University of Prishtina. After respecting objections and implementing recommendations raised in this accreditation process, the institution is expected to prepare a superior *Self Evaluation Report* for the forthcoming re-accreditation and is suggested to start seriously preparing a programme-concept of the master level.

In conclusion, the Expert Team considers that the **Study Program in Molecular Biology – Bachelor Level**, offered by the Faculty of Mathematics and Natural Sciences – the Department of Biology is **substantially compliant** with the standards included in the *KAA Accreditation manual* and, therefore, recommends **to accredit** the study program for a duration of **3 years** with a number of **30 students** to be enrolled in the program.

Expert Team

Member



Mladen Krajacic

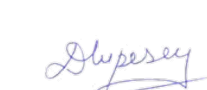
April 11, 2023

(Signature)

(Print Name)

(Date)

Member



Delia Lupescu

April 11, 2023

(Signature)

(Print Name)

(Date)