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Kosovo Accreditation Agency



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

Bachelor of Science in
BIOLOGY

Re-accreditation

REPORT OF THE EXPERT TEAM

May 24, 2024, Prishtina

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1. INTRODUCTION

1.1. Context

Date of site visit: May 24, 2024

Expert Team (ET) members:

- Professor *Mladen Krajacic*, PhD
- Professor *Miklós Hoffmann*, PhD
- *Ervin Rems*, Student-expert

Coordinators from Kosovo Accreditation Agency (KAA):

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

Sources of information for the Report:

- Self-evaluation report by the Faculty of Mathematics and Natural Sciences
- Syllabi Documents
- Teaching Staff CV Documents
- On-site visit and meeting with representatives of the institution and the study programme, students, graduates and employers

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

Time	Meeting	Participants
09:00 – 09:45	Meeting with the management of the faculty where the programme is integrated	Prof.dr. Idriz Vehapi Prof.dr. Arben Haziri Prof.asoc.Kajtaž Bllaca Prof.asoc. Ferim Gashi Prof. dr. Ferdije Zhushi Msc. Jeton Hyseni
09:45 – 10:30	Meeting with quality assurance representatives and administrative staff	Prof.ass.Ilir Mazreku Besnik Loxha Artan Alidemaj
10:30 – 10:40	<i>Short break</i>	
10:40 – 11:40	Meeting with the heads of the study programme: Biology, BSc 180 ECTS, Prof. Mladen Krajacic	Prof. dr. Hazbije Sahiti Prof. asoc. Kimete Lluga Rizani Prof. dr. Idriz Vehapi,
10:40 – 11:40	Meeting with the heads of the study programme: Financial Mathematics in Banking and Insurances, BSc 180 ECTS, Prof Miklos Hoffmann	Prof. dr. Naim Braha Prof. Asoc. Menderes Gashi Prof. Asist. Ujkan Bajra
11:40 – 12:40	Meeting with teaching staff	Prof. dr. Kasum Letaj Prof.dr. Avdulla Alija, Prof. dr. Kemajl Bislimi, Prof. dr. Elez Krasniqi, Prof. dr. Avni Hajdari, Prof. dr. Halil Ibrahimimi, Prof. Asoc. Bekim Gashi Prof. Assist. Lulzim Millaku Prof. Asoc. Ejup Fejza Prof. Asoc. Behar Baxhaku Dr. Ramadan Limani Prof. Assist. Eliot Bytyci Dr. Fisnik Asllani, Dr. Donard Geci Dr. Qendrim Ramshaj Dr. Albina Kalimashi Dr. Astrit Ferizi
12:40 – 13:40	<i>Lunch break (provided at the evaluation site)</i>	
13:40 – 14:20	Visiting Facilities	
14:20 – 15:00	Meeting with students	Dina Sadiku, Tefik Ramadani, Jona Demiri, Anes Murati, Blearta Kastrati Medina Rexhiqi Rilind Shala Melek Smaili

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		Adelina Maqedonci Jeta Morina, Genta Çitaku, Myhedin Cena, Ylber Aliu,
15:00 – 15:10	<i>Short break</i>	
15:10 – 15:50	Meeting with graduates	Dren Mulhaxha, Djellza Zajmi, Edison Kasumaj, Besnik Shabiu Dea Zekaj, Altina Morina Albin Ajeti Blerta Selmani
15:50 – 16:35	Meeting with employers of graduates and external stakeholders	Gani Ahmetgjekaj - Head of School Adnan Beqiri - Head of School, Qenan Maxhuni, KEERC Nexhmije Kamberi – IKMN Sharr Kryeziu – BKT Blerina Bajrami – PCB Albion Krasniqi - Gjirafa
16:35 – 16:45	Internal meeting of KAA staff and experts	
16:45 – 17:00	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

Molecular Biology

Master study programme in

Biology

Ecology and Environmental Protection

and

PhD study programme in

Biology of Organisms and Ecology

2. PROGRAM EVALUATION

2.1. Mission, Objectives and Administration

The Department of Biology has applied for re-accreditation of the *Study Programme in Biology – Bachelor Level*. The last accreditation of the programme was accomplished in 2021.

In accordance with the Faculty mission and objectives, the Department of Biology develops academic education and scientific research in the field of biology and molecular biology, as well as ecology and environmental protection.

The bachelor's study programme in Biology offers general biology subjects. It equips students with general knowledge and basic proficiency in a range of fundamental biology disciplines. It also offers fundamental courses in usual supporting subjects, such as chemistry,

physics and statistics. Intended learning outcomes are mostly consistent with both national and European qualification frameworks.

The Department of Biology proclaims permanent improvement by increasing the quality of studies. No matter the employability of bachelors, which is uncertain, an adaptation in line with the Bologna agreement (2001) was accomplished to approach European standards and to increase cooperation with European universities. With its well-defined didactic and research concept, the study programme satisfies as a preparation for the master level study, which is the most real objective of the bachelor level. As the only study programme in biology in Kosovo, it is in high demand, indeed.

The aim of the programme is properly presented in the Self Evaluation Report. The programme follows institutional policies and regulations, that are administered in a way to make them available to staff and students.

The study programme is properly supported by, and interacts with the corresponding research activities in the field of biology. A list of recent publications is an approval of intensive research efforts of the majority of the teaching staff members and confirms their teaching competences in the scope of the study programme.

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.

Compliance level: **Fully compliant**

ET recommendations:

No recommendation

2.2. Quality Management

The self-evaluation process is regulated by by-laws at the level of the University of Prishtina. The regulation mandates the participation of all staff in self-evaluations. As per regulation, staff involvement across all levels of the hierarchy (faculty management, i.e., dean and vice-deans, members of the faculty-level committee for quality assurance and evaluation, and other academic staff) is expected. Further, the quality assurance coordinator is responsible for ensuring cooperation among quality assurance at the level of the academic unit and the university office responsible for quality assurance. Overall, the team of experts assesses the precise regulation of quality management across different levels of organization as exemplary. Still, it is important to more systematically include the administrative and other support staff in self-evaluation procedures. Additionally, the team of experts notes that some academic staff are not involved in the procedures sufficiently. In practice, particular members of the academic staff participate in the quality assurance to a very low extent, i.e., less than the spirit of the by-

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laws expects. Thus, it would be beneficial to identify mechanisms that would motivate all staff for more proactive participation.

The general framework for the evaluation process and planning for improvement is an integral part of the Law on Higher Education in the Republic of Kosovo and the Statute of the University of Prishtina. The processes are regulated in more detail in the university-level regulation, i.e., Regulation on Quality assurance and evaluation, which defines the role and responsibilities of each Faculty as well as other respective stakeholders within the University of Prishtina.

All aspects of program planning and delivery, including aspects provided by another part of the institution, i.e., services and resources available/provided at the university level, are included in the internal quality assurance procedures. Specifically, the vast majority of relevant contents are evaluated through questionnaires tailored to different stakeholders and further analysed through self-evaluation reports. These involve, to a great extent, aspects of the program that are in the domain of other parts of the institution.

Quality evaluations, indeed, do consider inputs, processes, and outputs to provide an overview of quality issues for different components of the program. Crucially, however, the quality evaluations at the program level lack the assessment of the cooperative effect of different components of the program. In other words, the quality evaluation at the program level is not only a sum of quality evaluation of different components but shall also include mutual dependency of different components. For instance, the student surveys are only conducted at the level of specific courses. This is not sufficient to evaluate certain aspects of the program as a whole, such as the distribution of the student workload and the mutual integration of different courses within the program.

The assessment of meeting the required standards is an integral part of internal quality assurance as regulated by the University of Prishtina by-laws. Self-assessment of meeting the required standards is additionally performed during the preparation of a self-evaluation report for the external quality assurance procedures. The team of experts acknowledges a successful continuous improvement in the quality, which is evident through analysis of past self-evaluation reports and KAA expert team reports. On the other hand, the team of experts believes that the existing pace of improvement is in some aspects too slow to meet the scientific and professional progress in the broad field of biology. Additionally, the institution shall focus on a few (rare) areas that are continuously identified by KAA experts as non-compliant or partially compliant.

While the survey data is being collected, the results of evaluations are not publicly available.

Generally, the results of the internal quality insurance are considered and used to improve and develop the study program (*vide* 2.5). This to a large extent applies to evaluation

results. Importantly, while the evaluation of student workload and academic success are performed *de jure*, the team of experts was unable to identify any actions that the institution undertook to develop the study program in these areas. Additionally, no systematic, well-defined evaluations of the employment of graduates are performed or analysed. According to the team of experts, this presents a major pitfall in the overall quality assurance system.

The overall quality of the program is assessed periodically in the process of preparation for external quality assurance. This is manifested in the preparation of self-evaluation reports, which are, in line with KAA regulations and decisions, prepared periodically.

The university-level Central Commission for Quality Assurance and Evaluation and the faculty-level Committee for Quality Assurance and Evaluation regularly discuss the strengths and weaknesses of quality assurance. Additionally, the questionnaires used to assess the views of different stakeholders, especially staff and students, are being regularly improved.

Compliance level: **Partially compliant**

ET recommendations:

1. *Address the standards and performance indicators that are being consistently identified as non-compliant.*
2. *The role of graduates and employer's representatives shall be utilized in the overall quality assurance system.*
3. *Direct actions and policies that result from the quality evaluations should be analysed and emphasized in self-evaluation reports.*

2.3. Academic Staff

The Department of Biology provides sufficient full-time teaching staff, ranking from assistant professor to full professor, to supply the study programme. Their teaching workload (6 hours per week) makes them feel comfortable, leaving enough time for research, and administrative activities. The academic staff comply with the legal requirements, regulated by the university statute and related acts.

During the site-visit, the expert team was informed that formal criteria for selection, hiring and advancement of the academic staff have recently been revised and made more rigorous. However, this is not expected to change much. Obviously, it is quite easy to publish a required number of papers, especially when the only requirement is that papers have to be published in WoS or Scopus cited journals. It would be necessary to assess a particular author's contribution. Furthermore, it could change a lot if the criteria would encompass a requirement on an appropriate number of the first or correspondence authorships in a CV document of the applicant. It seems that there are regularly too many co-authors of which the role and

contribution is more or less uncertain. The academic staff claims that this issue is regulated from above, which is true, but it would be possible to gain a quality by introducing internal additional criteria (a bit stronger compared to those lounged at the national or the university level). That would contribute significantly in approaching European Higher Education Area standards – a task that is permanently stressed out in every self-evaluation report by the Faculty and the Department.

The elaboration from the previous chapter has to address the improper staff-structure, so-called up-side-down pyramid. Full professors make a dominant majority (13), outnumbering significantly assistant- (2) and associate (3) professors as follows:

Full professors:	13
Associate professors	3
Assistant professors	2
Assistants	9

As it was predicted in the former accreditation report, the issue has become even more serious. There is a realistic threat for further development of the Department, because too many staff members, for too long of their careers, will enjoy the relaxed position of full professor.

In parallel with a serious threat, there is also an opportunity and potential strength – a number of younger and mid-edged professors who are ambitious enough to ensure positive movements. In fact, there is a significant quality gap between the good majority and the bad minority of the teaching staff. The best ones would be competitive even in a much stronger research environment, but the worst ones are not able to prepare syllabuses that would bring modern educational content in the field. It was stressed out earlier, in the former accreditation reports (relative to this and other study programmes), but it seems that the Department is not able to manage this issue. Older staff members, not proficient in English and not capable of reading contemporary scientific literature; thus, unable to update the content of their courses, are presumably those who make the bad minority. Consequently, it is good news that four professors are going to be retired in the next few years. However, a “fresh blood” could contribute in further development and quality improvement only if young staff members would be selected and hired according to serious criteria of contemporary natural sciences and obvious potential to face expectations of the future biology.

During the session with students’ representatives, as well as graduates, we learned that they could recognise some low-quality teachers. There is a growing share of students, proficient in English, who are able to read scientific information on the internet. It is very important to stress out that they are aware of non-updated educational content in some courses delivered by a few inferior professors.

The number of assistants has grown minimally, from 8 to 9. Thus, a question remains on their teaching workload (in practical work with students) and their ability to participate in research activities or/and quality of the practical work, which is potentially organised in too large groups.

As stated in the previous accreditation report (2021), in spite of some negative observations, the quality of the teaching staff is permanently improving. There is obviously a growing share of advanced teaching staff. The younger employees, proficient in English, skilled in contemporary research techniques, and experienced in international collaborations are continuously getting more and more represented. Now, they are responsible to carefully select new assistants and particularly assistant professors, and ensure further development of the Department of Biology.

Compliance level: **Substantially compliant**

ET recommendations:

- 1. The Department of Biology has to be aware that too many full professors and small proportion of assistants and assistant professors is potentially a serious threat that could slow down progress and further development of both research and educational quality.*
- 2. There is a strong demand for a few academic staff members to develop and revise teaching content of their courses, and align it with contemporary knowledge in the field.*
- 3. Expectations from younger and mid-edge teaching staff should be more demanding*

2.4. Educational Process Content

The study programme complies with the National Qualifications Framework and the Framework for Qualifications of the European Higher Education Area. By including subject-related and interdisciplinary aspects, as well as the acquisition of methodological and generic skills and competences, it properly addresses qualification objectives. The programme develops academic competencies and prepares students for employment in different aspects of biology.

“Classical” biology dominates across this study programme, which is acceptable and reasonable when taking in mind that the Department has recently offered a new study programme in Molecular Biology that is more oriented to modern aspects of this field. Supported by some modern disciplines and related techniques, this study programme is primarily conceptualised towards botany and zoology, but also brings general knowledge on ecology, environmental protection and toxicology.

In general, the bachelor study programme in Biology is compatible with the study programmes and curricula delivered in the European Higher Education Area. The courses – components of the programme, are provided in a logical flow which is comparable to related study programmes across Europe. They are presented by analytical syllabuses which properly comprise the discipline’s objectives, the basic thematic content, learning outcomes, the distribution of classes, seminars and practical work, as well as students’ assessment system.

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But here comes a problem!

The specific educational content of a few courses brings some information concerning systematics and very general concepts that are far from recent perception in modern biology. The course in Microbiology would be in the highest demand to change and develop. Much more than any other topic, Microbiology intensively reflects all dramatical changes and hectic development of scientific opinions and concepts. It is necessary to present some serious failures in the Microbiology syllabus:

- Viruses are hardly mentioned which is absolutely unacceptable. Even more than microbial organisms, viruses are of extreme importance as infectious agents; they are fundamental, the most important and the most powerful ecological factors; during the second half of the 20th century, they have been usable models in early development of the molecular biology (a number of Nobel Prizes have been awarded for scientific achievements in viruses related research).
- Rickettsiae (incorrectly named in the syllabus) and Chlamydiae are small, intracellular bacteria – in the syllabus, they are presented as organisms distant from bacteria
- Actinomycete, although unique, are classified as bacteria – it does not seem like that in the syllabus
- Blue-green algae (Cyanophyta) belong to history – approximately 30 years ago the world literature started to be consistent in recognising those organisms as bacteria – Cyanobacteria.
- Yeasts and Molds belong to eukaryotic microorganisms, but they could be presented in the course Protista and Fungi
- There is no mentioning of antibiotic resistance – the main global threat in public health
- There is no mentioning of human microbiota and its enormous importance in human physiology – one of the most attractive topics in life sciences

Among courses that need urgent revision of related syllabus is Protista and Fungi – another course that brings information on Cyanobacteria (called again Cyanophyta) and presented in the scope of Protista review.

Literature related to some courses is really too old – there are just a few examples:

- Michael, J. Pelczar, Jr and E.C.S. Chan (1981): Elements of microbiology. McGraw-Hill Internacional Book Company.
- Tortora, J. Funke, B. and Case (1986): Microbiology, An Introduction 2d ed, Benjamin Publishing Company. Inc.
- W.W.Deacon, J.W.Deacon (1997) Modern mycology Blacjwell Science. Inc.
- Müller, A. W. (1996): Developmental Biology, Haidelberg, Germany

It has to be emphasised that students, and especially graduates are aware of old-fashioned and inappropriate content of some courses in the study programme. In agreement with discussion and comments presented in the previous chapter (3. Academic staff), syllabuses of the courses, delivered by more successful researchers, are regularly better and their content is more recent.

With the exception of some courses that need to be modernised and updated to meet recent standards in biological science, the study programme develops methodological and generic skills and competencies, contributing to students' employability, but also to their personality.

There is no complaint on student-teacher relationship, student assessment mechanisms, or other mechanisms used for verifying student achievement. Properly designed ECTS system, student workload and adequate number of examinations contribute to the academic feasibility of the programme.

Taking into consideration a small number of teaching assistants, a questionable teaching-hours load of the academic staff, and a need to divide students in small working groups, the expert team is concerned about proper performance of the practical student work.

Student assessment mechanisms rely on various approaches, which target specifics and differences among expected learning outcomes. Based on discussions held with teaching staff and students, the team of experts believes the assessment is performed fairly and objectively. The mechanisms of student assessment are in detail described in syllabi and presented to students at the beginning of courses.

Appropriate, valid, and reliable mechanisms are used for verifying standards of student achievement, which is demonstrated through regulations, self-evaluation reports, and course syllabi. The performance required for different grades is consistent over time, comparable across courses within a study program, comparable to other study programs at the faculty and university, and comparable to standards at reputable high education institutions in Kosovo and abroad.

The policies and procedures for situations where standards of student achievement are inadequate or inconsistently addressed are defined in the UP Statute through the regulation of the determination of academic success and the regulation of student rights and responsibilities. The team of experts, through discussions with students, determined that students were aware of these procedures. The team also notes that the procedures are generally applied as expected.

Compliance level: **Substantially compliant**

ET recommendations:

- 1. Some courses and related syllabuses must urgently be updated and aligned with recent scientific information, concepts and perceptions in modern biology! Continuous evolution of a course content is obligatory for university teachers.*
- 2. Both basic and additional literature should be refreshed – in a number of courses, the related syllabuses bring literature that is far too old.*

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3. *Modern laboratory techniques should be implemented as much as possible for practical work with students.*

2.5. Students

The admission procedure and criteria are defined at the level of the university. Specifically, this is established in the Statute of the University of Prishtina and, subordinately, in the Regulation for Basic - Bachelor Studies. The procedure is well-regulated, transparent, and ensures equal treatment of all applicants. It is well-established and traceable. Therefore, there is no reason to doubt that it is fairly applied to all students.

Candidates who have completed high school the State Matura exam, as well as those who have completed four years of high school (without the State Matura Exam) are eligible to participate in the admission procedure. Additional conditions are in place for students without the State Matura Exam, as per university regulations. Additionally, the UP statute regulates the equivalent foreign qualifications required for admission. The transparent admission procedure ensures that admission criteria are applied to all students (*vide* 5.1). It can be concluded, therefore, that all students do possess a high school diploma.

The number of students admitted to the program is limited to 60. The team of experts identifies this number as suitable to ensure effective and sufficiently interactive teaching and learning processes in lectures at bachelor-level studies. Seminars and exercises are performed in smaller groups of up to 15 students. This provides an opportunity for student-centred seminars and exercises. There is room for improvement in proactively exercising this opportunity and employing a student-centred learning process. The team of experts notes, however, that the newly established BSc program in Molecular Biology makes an opportunity for reducing the cap of 60 admitted students. That would ease the implementation of student-centred learning, even in lectures.

The knowledge of students is often assessed several times throughout the semester through midterm exams, which may in some cases replace the final exam. Other forms of assessment, for instance, project work, are employed rarely. Generally, students are provided with feedback promptly, i.e., within 14 days.

All results of the students are recorded within the electronic student management system (SEMS) and archived in a physical form. Students are provided with an appropriate physical proof of their results upon their request.

No flexible treatment is ensured for students in special situations in terms of knowledge assessment, deadlines, and course progression requirements. In cases of student absence from duties with compulsory attendance, e.g., tutorial, additional timeslots are provided only on a case-by-case basis and not an integral part of the study process. The team of experts identifies this as unsatisfactory.

Records of students' completion rates for the program were included in the self-evaluation report. However, completion rates for specific courses were provided neither in the self-evaluation report nor after the explicit request for this data.

Students sign a declaration on the originality of their bachelor's thesis. Supervisors are obliged to ensure the originality of the work. However, no general, well-defined mechanism is established in regulations to ensure originality and prevent plagiarism. Bachelor theses are not published online.

The rights and obligations of the students are clearly regulated with university-level regulations. The body of student representation is the student council, which is directly elected by students. Student representatives are also members of the faculty council and the university senate. While the student representatives consist of almost a fifth of the university senate, less than 5 % of the faculty council members are students. The team of experts evaluates the number of student representatives in the faculty council as rather low. Communication paths are established between students and their representatives and between student representatives and the faculty management. Students have a right to academic appeals, which is clearly regulated in internal regulations. Students are aware of this right but fell no need to exercise it.

While the student's transfer is clearly regulated in the Regulation on the mobility of UP academic staff and students, students believe there are significant challenges related to the recognition of ECTS credits obtained within mobility programs. As a result, students rarely participate in outgoing mobility. Additionally, there are no incoming mobility students.

Every teacher is available to students weekly in the form of consultations. Timeslots for consultations are easily accessible to students. Teachers are available during the time allotted for consultations and students do participate in consultations. Teachers are available to students via e-mail and, in general, respond promptly.

Compliance level: **Substantially compliant**

ET recommendations:

- 1. Ensure and formalize flexible treatment of students in special circumstances in terms of deadlines and formal requirements.*
- 2. Monitor and carefully analyse student progression rates on course-specific levels and student completion rates. Use this data to further develop the program.*
- 3. Publish bachelor theses of students online.*
- 4. Provide students with student counselling in case of emotional, financial, or family-related problems, career guidance, international matters, and legal advice.*
- 5. Substantially update syllabi and the literature used to follow the state-of-the-art in both professional and pedagogical aspects.*
- 6. Employ systematic use of software for detecting plagiarism, including the text generated by large-language models (LLM).*

2.6. Research

In the scope of general strategy of the Faculty of Mathematical and Natural Sciences, the Department of Biology emphasises its important mission – to be a national centre of biological research and the main factor of biology development in the country. Year by year, slowly but consistently, the Department has fulfilled its objective – to accept European research standards and approach the European Research Area.

Consequences of far too weak promotion criteria in the past (hardly any in some particular cases!) are still observable within the oldest generation of the research/teaching staff. Of course, this is strongly reflected in a lower level of the relative teaching skills and the relative educational content. All the statements and the defined research objectives, as well as all the policies established to support research activities failed in the past due to miserable and inconsistent promotion criteria. Up-side-down pyramid which reflects improper teaching staff structure is a possible threat that could diminish further progress. In concordance with the saying “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 in the European Research Area. The expert-team was informed that the promotion criteria have been recently revised. However, as discussed above, the criteria are predominantly quantitative; thus, the effect of those decent changes remains questionable. It would be necessary to insist on higher quality and impact of the published articles, as well as personal authors’ contribution. Unfortunately, an inappropriate research environment did not contribute to fulfilling scientific objectives. Insufficient financial support was another threat that has not played in favour of research prosperity.

In spite of a number of unfavourable aspects, a progress accomplished by some staff members was reported in the previous accreditation report, three years ago. In the recent report, it has to be emphasised that this positive movement has been continued.

Some important positive trends have been triggered in the past decade. The first positive changes resulted from individual enthusiasm of some staff members. They have participated in some international collaborations, using project funds to equip their laboratories and improve research and learning environment also for their assistants and students. They have published scientific papers in more prominent journals and included younger colleagues in their research projects. By mentoring them, they have, in the best way, gained their research skills and supported their career development. A number of successful collaborative research arrangements with colleagues from the international community have been developed. It seems that it is not a result of some individual effort anymore – research progress is now the rule and not an exception. One can realise that it is a general movement and collective effort, strongly supported by all the institutional levels. To resume shortly, the Department succeeded in keeping the progressive changes continuous.

In the Self Evaluation Report, there is a list of projects that have been completed or being ongoing in the last five years. The financial support by the University is restricted, mostly symbolic, covering some small research projects. A majority of research funds resulted from

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ambitious staff members who are engaged in providing funding from foreign organisations and international sources. A significant step forward is the fact that the University of Prishtina recognised the importance and value of international publishing and established a scheme of supporting researchers who publish their results in WoS and Scopus journals.

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 emphasise 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 published in more prominent journals, compared to those that had been prevalent earlier. The number of those journals is expected to be further increased, in relation to local, hardly relevant journals (even those that are issued abroad but in low-profile and low-quality journals). 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, recommended in the previous accreditation reports, has contributed proper perception of the scientific results and achievements. 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.

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. The Faculty of Mathematical and Natural Sciences, including the Department of Biology, is certainly among the most internationally recognised scientific institutions in the Republic of Kosovo.

Compliance level: **Substantially compliant**

ET recommendations:

1. *The progress, visible in the last accreditation process, is expected to be irreversible, even accelerated and intensified.*
2. *The Faculty management and the Department leading staff is recommended to be aware of a potential threat – too many full professor positions, reached too early, might cause a too relaxed research environment with a potential lack of motivation for further progress.*
3. *International collaborations, research training and specialisations could/should be additional demands for promotion to higher academic positions (not only respectable publications). Additional demands could/should be established internally by the institution itself.*
4. *A personal contribution could/should be considered for every publication. Particularly in publications bringing a large list of co-authors, it is not possible that all of them contributed equally (and maybe some have not contributed at all).*

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 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 have appeared at the Department during the past decade.

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 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 in Molecular Biology*, it will be welcomed as never before.

Compliance level: **Substantially compliant**

ET recommendations:

1. *In the new building of the Faculty of Mathematics and Natural Sciences, the infrastructure will presumably be adapted to students with special needs.*

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 leadership, 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.

A revision of some syllabuses is urgently needed. A few of them belong to scientific perception of the last quarter of the 20th century. Furthermore, the educational content of the relative courses is supported with references of that time. The institution must find a way to fix that, and prevent the study programme to be spoiled by a couple of syllabuses that are not updated to recent perception in modern biology. Furthermore, additional efforts are needed in improving the quality management system.


In general, the expert team appreciates efforts of the significant majority of the academic staff who have succeeded in keeping the progress and development of the Department continuous.

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In conclusion, the **Bachelor Study Program in Biology**, offered by the Faculty of Mathematics and Natural Sciences – the Department of Biology is considered **substantially compliant** with the standards included in the *KAA Accreditation manual* and, therefore, recommended **to be accredited** for a duration of **3 years** with a number of **45 students** to be enrolled in the program.


Expert Team

Member




(Signature) **Mladen Krajacic** **June 10, 2024**
(Print Name) (Date)

Member



(Signature) **Miklós Hoffmann** **June 10, 2024**
(Print Name) (Date)

Member



(Signature) **Ervin Rems** **June 10, 2024**
(Print Name) (Date)