***University of Prishtina (FSHMN)***
***Hasan Prishtina***

***Faculty of Mathematics and Natural Sciences***

# PROGRAMME Re Accreditaton

***Master of Computer Science***

## REPORT OF THE EXPERT TEAM

*27.11.2024, Prishtina*



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## INTRODUCTION

### Expert Team (ET) members:

- Professor Miklos Hoffmann, Mr. Damiann Michalik (student expert)
- Professor Seifedine Kadry

### Coordinators from Kosovo Accreditation Agency (KAA):

- Shpresa Shala, SO for Monitoring and Evaluation
- Arianit M. Krasniqi, Director of Department for Evaluation and Accreditation

### Sources of information for the Report:

- Self-evaluation Report (SER);
- Documents (Agreements, Rules, CVs, Strategies, Manuals, List of Publications, Statues, Syllabi)
- list of courses and learning outcomes
- Website of the Institution

### Criteria used for institutional and program evaluations

- KAA Accreditation Manual, 2024
- Criteria for Relevance, Efficiency, Effectiveness, Impact, Sustainability

### Site visit schedule

| Time | Meeting | Participants |
|---|---|---|
| 09:00 – 09:50 | Meeting with the management of the faculty where the programme is integrated | Prof.asoc.Kajtaz Bllaca<br>Prof.dr.Arben Haziri<br>Prof.asoc.Ferim Gashi<br>Prof. Asist. Lulzim Millaku<br>Msc.Jeton Hyseni |
| 09:55 – 10:40 | Meeting with quality assurance representatives and administrative staff | Asist. Dr. Kaltrina Jusufi<br>Besnik Loxha<br>Artan Alidema |
| 10:45 – 11:45 | Meeting with the program holders of the study programme<br>**Computer Science, MSc** | Eliot Bytyçi<br>Korab Rrmoku |
| 11:45 – 12.45 | Lunch break | |
| 12:45 – 13:15 | Visiting facilities | |
| 13:15 – 14:00 | Meeting with teaching staff | Ermir Rogova<br>Artan Berisha<br>Armend Shabani<br>Edmond Aliaga<br>Ejup Fejza |
| 14:05 – 14:50 | Meeting with students | Eroll Gorci<br>Enda Alidema<br>Erblin Halabaku<br>Liri Rexha<br>Vullnet Gervalla<br>Eljesa Kqiku |
| 14:55 – 15:40 | Meeting with graduates | Ilir Kicmari<br>Flutura Fejzullahu<br>Lyra Dobruna |
| 15:45 – 15:40 | Meeting with employers of graduates and external stakeholders | Raiffeisen Tech Kosovo - Arten Avdiu<br>91 Life/Metrics - Bin Limani<br>KODE Labs - Gentrit Gojani<br>Starlabs - Bardha Jashari<br>Kin + Carta Prishtina |
| 15:40 – 15:50 | Internal meeting of KAA staff and experts | |
| 15:50 – 16:00 | Closing meeting with the management of the faculty and program | |

**A brief overview of the programme under evaluation**

In 1971, the Faculty of Mathematics and Natural Sciences (FMNS) was founded as an academic division of the University of Prishtina "Hasan Prishtina" with the aim of training students in the fields of mathematics and natural sciences to equip graduates for the workforce and to serve as teachers in primary and secondary schools throughout the Republic of Kosovo. Furthermore, the FMNS plays a role in advancing scientific development, research, and education by collaborating with various national and international partners on a range of projects.

The priorities of the FMNS are in line with the priorities of the University of Prishtina "Hasan Prishtina" and the strategic plan 2023-2025, 1) Raising the quality of teaching and learning, 2) Advancement of science, innovation, and better connection with the labour market, 3) Improving the position and role of UP in the international scene, 4) Advancement of infrastructure and use of digital technology, and 5) Strengthening governance, integrity, and financing. Also, the objectives the faculty of mathematics and natural science are: Advancement of teaching quality, advancement of scientific research work in the related fields, training of students for teaching and preparing them for the job market, and improvement of cooperation with the institutions inside and outside the country, whether they are institutions of higher education or public and private economic institutions.

The FMNS is comprised of five departments including, 1) Chemistry department, 2) Department of Mathematics, 3) Department of Physics, 4) Department of Biology, and 5) Department of Geography. The SER indicates that Computer Science program is housed in the Mathematics Department.

## PROGRAMME EVALUATION

*The programme evaluation consists of 7 standard areas through which the programme is evaluated.*

### 1. MISSION, OBJECTIVES AND ADMINISTRATION

**Standard 1.1 The study program is in line with the higher education institution's mission and strategic goals, needs of society and it is publicly available. (ESG 1.1)**

The University of Prishtina mission is focused "on academic development, scientific and artistic research, and the provision of higher education through programs of strategic and developmental interest to the Republic of Kosovo. The University enables the mobility of programs, students, and academic staff on an ongoing basis, intending to reach the international level and competition in the market."

In the strategic plan implemented for years 2023-2025, the university set the following objectives:

- Increasing the quality of teaching and learning
- Advancement of science, innovation and connection with the labour market
- Improving the position and role of UP in the international scene
- Digitization and improvement of physical infrastructure
- Strengthening governance, integrity and financing

The strategic plan also includes KPIs which allows representatives to monitor the university progress. Even though the university mission and strategy plan do not specify any study fields, the scope of the study programme reflects general mission and labour market demands. RT considers that both strategy and the study programme are aligned to the mission statement of the university. Nevertheless, in the recent novelization of statute and coming end of strategic plan, the faculty representatives should collect relevant insights and accordingly improve study programme content.

RT has learned from labor market representatives that offering master's in Computer Science provides a broader spectrum of skills and relevant research experience, which is beneficial for the Kosovan community. However, the discussions also revealed that these external stakeholders, regardless of internships, could be more actively involved in ongoing implementation of the study program or even conducting some practical courses. It would adjust the study programme even more to society demands.

The study program is well-justified based on the number of students and the current capabilities of the faculty. It may be beneficial to consider enhancing the available resources for students to conduct research activities in the future. This is particularly relevant when faculty representatives consider expanding the offerings to include a PhD program.

**Standard 1.2 The study program Is subject to policies and procedures on academic integrity and freedom that prevent all types of unethical behaviour. The documents are publicly available, and staff and students are informed thereof. (ESG 1.1)**

The study program adheres to policies and procedures on academic integrity and freedom, ensuring the prevention of all forms of unethical behavior. These guidelines are documented and made publicly accessible, promoting transparency and accountability. The University's Code of Ethics serves as a guiding framework for the behaviour expected from all university affiliates, including students, staff, and faculty members. It details essential principles and values, and regulates issues such as plagiarism, academic misconduct, conflicts of interest, and harassment. Moreover, the University has instituted entities like the Ethics Committee, with responsibilities that include enforcing compliance with these regulations.

RT identified that there is still room for improvement in the information available on how to utilize AI when preparing projects and tasks. Even though it is expected that students should mention when AI-powered solutions are used to solve tasks, many students are not fully aware of this requirement.

**Standard 1.3 Relevant information is collected, analysed and used to ensure the effective management of the study program and other relevant activities and such information is publicly available. (ESG 1.7)**

A reliable system has been established to ensure the successful management of the program through regular surveys among all stakeholders: academic staff, administration workers and students. This process helps identify areas for improvement and make informed decisions to enhance the quality and effectiveness of the study program. In the coming year, with the conclusion of the current strategic plan, it would be beneficial to establish quantitative objectives to create a clear roadmap for the further development of the study program.

Regarding the use of personal data, measures are implemented to protect sensitive information, such as publishing only the student's identification number (issued by the University) when setting grades, and providing clear guidance on data handling procedures for staff and students.

**Standard 1.4 The delivery of the study program is supported by appropriate and sufficient administrative support to achieve its goals in teaching, learning, research, and community service. (ESG 1.6)**

The study program has adequate administrative support to meet the diverse teaching and learning needs of both students and academic staff. Operating administrative team manages tasks such as student registration, scheduling, academic advising, and facility management, addressing operational needs promptly and effectively. Based on meetings with students, operations were adjusted to be more efficient and beneficial for everyone whenever issues arose. Adequate administrative support is also delivered to academic staff members who can

concentrate on their core responsibilities of teaching, research, and mentoring. Additionally, both administrative and academic staff participate in professional development opportunities, including workshops, conferences, seminars, and online courses, to enhance their ability to perform their duties efficiently.

**Standard 1.5 The recommendations for quality improvement of the study program from previous internal and external quality assurance procedures are implemented. (ESG 1.10)**

According to the presented evidence, not all recommendations from the previous external quality assurance activity have been implemented yet. Certain aspects still require additional attention, particularly the research activities of academic staff and resource allocations.

**ET recommendations [timeline 1 year]:**

1. *Collection of relevant insights resulting from the strategic plan which ends in the next year and improve the study programme accordingly.*
2. *Active involvement of labour market representatives into implementation of study programmes and even conducting some courses.*
3. *Further enhancement of the available resources for students to conduct research activities.*
4. *Formally implement and clearly disseminate guidelines in terms of use AI solutions in projects, tasks, etc.*
5. *Revise last recommendation from external review, in particular pointing out research activity of academic staff and resource allocations.*

## 2. QUALITY MANAGEMENT

**Standard 2.1 The study program delivery is subject to an established and functional internal quality assurance system, in which all relevant stakeholders are included. (ESG 1.1)**

The formal system at the University of Prishtina encompasses a Regulation on Quality Assurance and Evaluation approved in 2016. This regulation also defines the role and responsibility of organisational and academic units at the University of Prishtina for carrying out quality assurance and evaluation activities. According to the Quality Assurance Regulation, the quality assurance processes cover a number of issues – teaching quality, services for students, scientific activity, international cooperation and resources. According

to the SER, there are four types of quality evaluation instruments – academic staff questionnaires, questionnaires for course evaluation, administrative staff questionnaires and student questionnaires. There is a structure at the central level that explains the formal responsibilities of all parties. The evaluation process is administered at the central level but executed on faculties.

The faculty has designated staff responsible for managing quality assurance activities, and they have sufficient time to maintain the quality assurance system. RT has observed that the system is well-established and ensures an adequate cycle for continuous improvement.

According to the meeting with quality assurance representatives, feedback is collected, analyzed, and conclusions are formulated in the annual quality assurance report. This report is published and made available to all stakeholders. However, it would be beneficial to send a direct message to each academic group to highlight the progress resulting from the monitoring system.

**Standard 2.2 The study program is subject to a process of design and approval established by the HEI. (ESG 1.2)**

The University of Prishtina implements Law no. 04/L-037 "On Higher Education in the Republic of Kosovo" and the University Statute as the legal basis for regulation, functioning, financing, and quality assurance in higher education, in accordance with European standards. The ongoing development of the study program is aligned with the institution's mission and strategic goals. Although these elements are broadly formulated, the faculty meets the requirements of UP. Additionally, the quality assurance system is highly centralized, ensuring adherence to strategic goals.

In coordination with the Vice-Rector for Quality Assurance and the Office for Academic Development, academic units lead the program accreditation process through the Central Quality Assurance Commission at the University level and the Senate. This process meets the requirements of the Kosovo Accreditation Agency and consistently fosters continuous improvement.

The process for developing and approving the study program is well-defined and includes input from internal and external stakeholders, as well as international universities. Given that this evaluation is for re-accreditation, all important metrics are considered, including teaching quality, scientific activity, international cooperation, graduate and employer perceptions, student services, and organizational culture, all gathered from stakeholders. Additionally, staff have recently been trained by ASIIN, the German quality agency, enhancing their skills to effectively support a culture of quality assurance.

**Standard 2.3 The study program is periodically monitored and reviewed to ensure its objectives are achieved. The monitoring of the study program involves stakeholder participation. (ESG 1.9)**

A broad spectrum of internal and external actors are involved in monitoring and reviewing the study program. From the perspective of governing the internal system, the relevant entities include the University Senate, the Rector, the Central Commission for Quality Assurance and Evaluation at the University level, the Office for Academic Development at the University level, the Dean of the academic unit, and the Commission for Quality Assurance and Evaluation at the academic unit level. These entities are responsible for collecting feedback from all stakeholders and implementing improvements to enhance the study program.

RT noticed that the program is developed in consultation with relevant internal and external stakeholders and is regularly reviewed and updated to ensure it remains aligned with institutional priorities and the local context. This is achieved through a comprehensive needs analysis conducted by the institution and its staff, considering various factors such as employment prospects, demand from potential students, and emerging trends in the relevant field.

To gather valuable insights for monitoring purposes, the institution regularly sends questionnaires to internal stakeholders. These questionnaires and forms, developed by the University of Prishtina, are tailored for academic staff, administrative staff, and students, each containing questions relevant to their respective categories. The questionnaires are completed electronically and managed by SEMS.

| **Questionnaire** | **Categories** | **Purpose** |
|---|---|---|
| Academic Staff | Faculty, Teaching and Learning, Scientific Research Activity | Collect data for continuous improvement from teachers' perspective |
| University Administrative and Support Staff | Jobs and Responsibilities | Collect information on professional training, working conditions, relationship with academic staff |

| | | |
|---|---|---|
| Student | Teaching and Learning, Practical/Laboratory Work, Infrastructure Services | Provide data on teaching and learning, practical/laboratory work, infrastructure services |

The first public reports on the results of surveys have been produced only very recently. It would be very important for the summary reports on employer and graduate feedback (but not limited to) to be produced at the faculty level to allow the community to get a clear overview on the faculty performance and allow for immediate translation into improvement actions.

**Standard 2.4 All relevant information about the study program is clear, accurate, objective, up-to-date and is publicly available. (ESG 1.8)**

According to conducted discussions and available evidence, all policies, regulations, and guidelines pertaining to the study program are publicly available. According to the document, the study program is subject to written procedures and mechanisms to deal with issues such as plagiarism, academic dishonesty, and various forms of discrimination, as defined by the Code of Ethics of the University of Pristina. These documents are publicly available, and staff and students are informed thereof.

Important elements related to enrollment are publicly available. However, not all of them are accessible to everyone. RT has not found syllabuses, learning outcomes, credits, and assessment methods. Although these documents can be accessed via SEMS, it is crucial to publish all of them for external stakeholders. Besides documents, it should be presented more information upon. pass rate, dropout rate, and graduate employment.

Based on the review, all information is up-to-date and reliable. However, it should be expanded, and all gaps, as mentioned, should be addressed.

**ET recommendations:**

1. *More directed dissemination of feedback to all stakeholder groups showing that the process is effective and outcome-oriented.*
2. *Expanding more information about qa culture to all stakeholders to make the process more transparent for everyone involved, including publishing of more information.*

## 3. ACADEMIC STAFF

### Standard 3.1 The study program delivery is supported by teaching staff who are recruited in line with national legislation, and internal regulations in effect, and it is based on objective and transparent procedure. (ESG 1.5)

The University announces academic staff employment on its website, following internal regulations. Each department submits a request for hiring, which is processed by the Senate and the Board of Directors before announcing the position in a general competition. Candidates must meet the competition requirements, and selection is based on the regulations regarding appointment and advancement of staff. Currently, the Department has 22 full-time employees. Candidates for employment are provided with full position descriptions and employment conditions

### Standard 3.2 The study program is supported by sufficient permanent academic staff who are adequately qualified to deliver the study program. (ESG 1.5)

The Department of Mathematics has sufficient and well-qualified team dedicated to research and studies, focusing on gradual staff renewal and recruitment from exemplary students. All Mathematics Department staff are full-time employees, with additional part-time roles in other educational institutions. For every 60 ECTS in the program, there is a full-time professor with a PhD, ensuring a student-to-staff ratio of 1:10. Staff qualifications are evidenced by publications, and workload is regulated by labor laws, allowing for a 30% increase in commitments. Students are guided by professors and assistants, and final thesis mentoring is handled by the chosen professor. To improve the learning process, the program must have a strategy in place to invite professor from abroad, and guest speaker from the local industry especially for hans-on topics in the program.

### Standard 3.3 The study program is supported by teaching staff who are subject to advancement and reappointment based on objective and transparent procedures which include the evaluation of excellence. The advancement of staff arises from the higher education institution’s strategic goals and is in line with the legislation and internal regulations in effect. (ESG 1.5)

The staff of the Department of Mathematics primarily work within the department, with some also holding part-time positions elsewhere. Advancement for academic staff is based on scientific activity, including publications in WoS or Scopus-indexed journals, conference participation, supervision of master's and doctoral subjects, and publishing educational materials. This is outlined in the University of Pristina's regulations for staff advancement.

### Standard 3.4 The academic staff engaged in the delivery of the study program is entitled to institutional support for professional development. (ESG 1.5)

The University of Prishtina supports staff in attending international conferences and publishing in indexed journals. Two staff members participate in COST projects and Erasmus+, with some applying for Horizon Europe. The university focuses on improving quality through academic development, enhancing teaching infrastructure, and encouraging study visits abroad. Staff are informed about mobility opportunities through the Office for International Cooperation and have completed training at the center for excellence in teaching. Motivate more staff to participate in national and international projects.

**Standard 3.5 External associates who teach at the study program have adequate qualifications and work experience for the delivery of the study program and achievement of the intended learning outcomes. (ESG1.5)**

The committed staff are actively participating in cutting-edge research and maintain a strong connection to the academic program. The dedicated staff possess teaching experience as well as expertise in the IT field. In their role as external collaborators, they have the ability to take part in evaluation committees. The workload assigned to external collaborators is structured to ensure that high-quality teaching is maintained. This is accomplished by carefully balancing the subjects that will be listed in the call for external collaborators. Currently the department has 22 FT and 9 PT staff. Some faculty members are not active in research and that might affect the quality of the program.

**ET recommendations:**

1. *To improve the learning process, the program must have a strategy in place to invite professor from abroad, and guest speaker from the local industry especially for hans-on topics in the program.*
2. *Motivate more staff to participate in national and international projects.*
3. *Some faculty members are not active in research and that might affect the quality of the program.*

## 4. EDUCATIONAL PROCESS CONTENT

**Standard 4.1 The study program intended learning outcomes are formulated clearly, precisely, and comprehensively according to the best practices; they are aligned with the published institution's/academic unit's mission and strategic goals and are publicly available. (ESG 1.2)**

The learning outcomes of the study program are clearly presented and they are fully aligned with the university's mission and its strategic goals. The intended learning outcomes are also aligned with the general goals and objectives of the study program. However, these outcomes are not transformed into the specific outcomes of the courses, the overall learning outcomes of the study program are not fully aligned with the learning outcomes of the individual courses. Specifically, it is not clear which courses will ensure the achievement of each overall learning outcome.

The program's intended learning outcomes are defined and described from a student perspective, declaring the skills and competences a graduate will be able to use in the labour market. The learning outcomes are adequately published on the university website. It is also clear that these outcomes are based on examples of good practices in defining intended learning outcomes, and also based on an existing study program (University of Ljubljana) and the recommendations of renowned international organizations. The mapping of learning outcomes against the program of University of Ljubljana has been performed.

The description of the learning outcomes adequately puts emphasis on the development of generic soft skills and specific field-related competencies as well.

**Standard 4.2 The study program intended learning outcomes comply with the National Qualification Framework and the European Qualifications Framework level descriptors. (ESG1.2)**

The learning outcomes of the study program fully comply with the National Qualification Framework and the European Qualifications Framework level descriptors. At several points the outcomes of this study program differ from the learning outcomes achieved at the undergraduate level of the analogous study program. This difference is especially relevant in case of students who are coming from other bachelors than Computer Science.

The intended learning outcomes of the study program are fully aligned with the provided level and profile of qualification, and there are no significant overlaps across different study programs (notably the Applied Mathematics master) of the university.

**Standard 4.3 The content and structure of the curriculum is coherent and enable the students to achieve the intended learning outcomes and to progress smoothly through their studies. (ESG 1.2)**

The course list of the curriculum is provided in a logical flow and it is in line with the expected general and specific competencies, as well as the compatibility with similar study programs and curricula delivered in other universities.

The logical order of courses assures that students' progression through the program courses will be smooth and ensures that the learning outcomes of previously successfully passed courses are sufficient to meet the prerequisites of the upcoming courses in the curriculum, where relevant.

The core disciplines of Computer Science necessary for obtaining the foreseen skills and competences are well covered by the curriculum, with special emphasis on Data Science. However, it would be worthwhile to make some practical changes to the curriculum. As we discussed during the on-site visit, since students come from other bachelors studies with very different professional backgrounds, it would be worthwhile to introduce more elective courses in the first semester, which would be suitable for them to acquire the missing competencies. Students reported individual difficulties in this regard, which could be mitigated by the list of recommended elective courses in the first semester (or first year) for each different study path.

It was also observed that the pure mathematical content is quite oversized in the curriculum overall (for example in Advanced Calculus and Advanced Algebra). This must be decreased and replaced by more relevant computer science topics, and more application-oriented chapters of the field, always demonstrating the direct relationship between the theoretical aspects and the applications in computer science.

Since the study program is based on the analogous study program of University of Ljubljana, it would be advantageous to compare the present curriculum with that study program from time to time in order to keep the content up-to-date and keep the relevance of the competences and the employability of the graduated students at the same high level as it is now.

**Standard 4.4 If the study program leads to degrees in regulated professions, it is aligned with the EU Directives and national and international professional associations. (ESG 1.2)**

Due to the fact that the study program is based on a specific existing EU program (University of Ljubljana) and on recommendations of relevant international professional organizations (ACM, IEEE), it is well assured that the study program is compatible with prescribed conditions defined in EU Directives and in line with the international standards.

**Standard 4.5 The intended learning outcomes of the student practise period are clearly specified, and effective processes are followed to ensure that learning outcomes and the strategies to develop that learning are understood by students (if applicable). (ESG 1.2)**

n/a

**Standard 4.6 The study program is delivered through student-centred teaching and learning. (ESG 1.3)**

The study program has no very well established didactic concept which supports students in achieving the program learning outcomes, at least it is not clearly declared in the report. The methodology is rather based on individual efforts of the teachers, with varying approaches and levels.

That said, the study program is delivered through various pedagogical methods that align with the intended learning outcomes and are mostly adequate for the level of studies. However, project based learning methods, and a more widespread usage of real life problems and data sets instead of academic problems could certainly improve the methodical aspects of the program.

Due to the collection of feedback from students the institute is aware of any issues in terms of methodical approaches. It is also positive that each staff member engaged in teaching completed a training from the Center of Excellence at the University of Pristina. However, it is not entirely clear what kind of additional training is available for those who would like to improve their methodical competences.

As a positive aspect, the technological conditions are of good quality and they allow the instructors to apply various methodological approaches.

**Standard 4.7 The evaluation and assessment used in the study program are objective and consistent and ensures that intended learning outcomes are achieved. (ESG 1.3)**

As already mentioned, the program and the report does not make clear correspondence between the overall intended learning outcomes (knowledge, skills and competences) and the contribution made by each individual module to achieve those learning outcomes. This makes the evaluation of the level of overall competences quite challenging.

Most of the assessment methodologies which are implemented in the program ensure systematic assessment of individual learning outcomes related to all relevant areas of knowledge, skills and competences of that specific course. However, as noted in the on-site session, incorporating the frequency of course attendance into the course evaluation is not entirely appropriate. Attendance can be defined as a basic criterion of the course, but it cannot give 10% of the grade, as is the case with several courses. Apart from this issue, the study program ensures objective and reliable grading of students.

The assessment criteria and methods, as well as grading criteria for the study program, are published in advance and all students are informed about it. Students also receive

clear information on the evaluation at the beginning of the course, and further feedback on the evaluation results. Student appeals procedure for the study program, especially in terms of individual course evaluation, is not clearly defined, at least students were not fully aware of this procedure.

**Standard 4.8 Learning outcomes are evaluated in terms of student workload and expressed in ECTS. (ECTS 1.2)**

The entire study program is based on the ECTS framework, and it is well evidenced that the workload is proportionally calculated and ECTS assigned to all learning activities that lead to the program learning outcomes. Assessment criteria are coherent and comparable to the expected knowledge, skills and competences of students.

**ET recommendations [timeline 1 year]:**

1. *Make a clear correspondence between the general learning outcomes of the study program and courses, including the specific learning outcomes of the courses. Some aspects of the general learning outcomes must appear in the list of learning outcomes under each of the courses.*
2. *It would be worthwhile to introduce more elective courses in the first semester, which would be suitable for students coming from bachelor study programmes different from Computer Science to acquire the missing competencies.*
3. *The pure mathematical content is quite oversized in the curriculum overall (for example in Advanced Calculus and Advanced Algebra). This must be decreased and replaced by more relevant computer science topics, and more application-oriented chapters of the field, always demonstrating the direct relationship between the theoretical aspects and the applications in computer science.*
4. *Incorporating the frequency of course attendance into the course evaluation is not entirely appropriate. Attendance can be defined as a basic criterion of the course, but it cannot give 10% of the grade, as is the case with several courses.*
5. *Student appeals procedure for the study program, especially in terms of individual course evaluation, must be clearly defined and widely publicized.*

## 5. STUDENTS

**Standard 5.1 Clear admission policies, including requirements, criteria and processes for the study program are clearly defined and are publicly available. (ESG 1.4)**

Student admission follows a transparent process initiated by a public call for applications, detailing the admission criteria that all candidates must meet. The number of students to be

admitted is determined by the department and approved by the faculty council and university senate, within the limits set by the Kosovo Accreditation Agency. Preliminary results are published on the faculty webpage for transparency. Candidates dissatisfied with the results can file a complaint within a specified deadline, ensuring accountability. An admission committee, proposed by the department and approved by the faculty council, oversees the entire process to ensure fairness and consistency (https://apliko.uni-pr.edu/).

Candidates are eligible to apply if they have completed a bachelor's degree with 240 ECTS credits (four years of study) for master programs with 60 ECTS credits, or 180 ECTS credits (three years of study) for master programs with 120 ECTS credits. This ensures they have the necessary academic background for advanced studies. Candidates with bachelor's degrees from abroad can also apply, provided their diploma is recognized by the Ministry of Education, Science, and Technology (MEST) of the Republic of Kosovo, allowing for diverse educational backgrounds in the master's programs.

**Standard 5.2 Student progression data for the study program are regularly collected and analyzed. Appropriate actions are taken to ensure the student's completion of the study program. (ESG 1.4)**

Student knowledge is assessed through various methods, including exams, colloquia, seminar papers, practical tests, and project presentations. Exams are organized by course professors and teaching assistants during specified terms (January, June, and September). Students receive prompt and continuous notification of their exam results via SEMS or emails. They can request individual sessions with professors if they have concerns about their evaluation. If there is a disagreement with the assessment, students can submit a complaint to the Dean, which may lead to a review by a faculty-appointed commission, ensuring fairness and transparency.

The SEMS electronic platform (https://sems.uni-pr.edu/) meticulously records and confirms student performance at the end of each semester, serving as a central repository for all student records. This ensures accessibility for administration, faculty, and university management, prioritizing transparency and accountability. To complete their studies, students must fulfill all obligations, successfully complete master program courses, and defend their thesis. Upon meeting these requirements, they are awarded the title of 'Master of Science.'

The university ensures that students can complete their studies within a reasonable timeframe, typically within four years, known as the double period of the study duration. In special cases, students may request an extension of one or two additional years if they are unable to fulfill all obligations within the prescribed period. This request must be justified and submitted to the faculty council for consideration.

Records are stored in SEMS and analyzed at the department level. If a course shows low completion rates, the professor meets with the department head to address issues and develop improvement strategies. This analysis is also conducted annually for the entire program, ensuring proactive measures to enhance educational quality and student success.

**Standard 5.3 The study program ensures appropriate conditions and support for outgoing and incoming students (national and international students). (ESG 1.4)**

The procedures for transferring students between study programs, whether within the university or to/from other higher education institutions, are detailed in the Regulation for MSc studies of UP, specifically in articles 13, 14, 15, and 16. According to meetings with students, all are aware of the opportunities for international exchange programs. Each faculty has a designated person responsible for promoting these opportunities and guiding students through the process of temporary relocation to another HEI.

The study program recognizes qualifications gained from other higher education institutions. However, students have pointed out issues related to uncertainties in student exchange programs, particularly the concern that spending a semester abroad may not yield all the necessary credit points. Therefore, it is recommended to benchmark study courses to prepare transparent and comprehensive offerings without unexpected outcomes.

To date, the study program has not attracted any international students. From their perspective, UP needs to identify and promote a unique selling point. Although courses can be offered in English, the website lacks information on the benefits of studying in Prishtina. RT believes there are opportunities to reach potential students, but better advertisement and transparency of UP's offerings, including the computer science program, are needed.

**Standard 5.4 The study program delivery is ensured through adequate resources for student support. The needs of a diverse student population (part-time students, mature students, students from abroad, students from under-represented and vulnerable groups, students with learning difficulties and disabilities, etc.) are taken into account. (ESG 1.6)**

The faculty and the entire university provide essential resources to support students. They offer high flexibility for mature students, working students, students with learning difficulties and disabilities, and other groups. However, not all information is clearly articulated and formalized.In general, the rights and duties of students are clearly defined in the Statute of the University and regulation for bachelor studies, which can be accessed through the university and faculty websites. Students are entitled to specific rights as well as obligated to fulfil certain responsibilities.

Additionally, student representation is facilitated through different entities within the university's framework. At the university-wide level, the Student Parliament functions as a key forum for student advocacy and representation. On a more local scale, each faculty generally has its own Student Council, which focuses on addressing student issues and advancing their interests.

In addition to scheduled consultation hours (3h per week), students are actively encouraged to approach teaching staff for any relevant requests or needs. This open-door policy fosters a supportive learning environment and facilitates student-teacher interaction. Furthermore, to accommodate special cases or students' preferences, consultations can also be conducted online upon request. This learning support is appreciated by students and it mitigates learning difficulties.

Students with disabilities can count on flexible support, in particular different deadlines and adjusted forms of assessment. The university aims to help achieve educational goals for students with physical disabilities, learning disabilities, persistent illness or short-term illness. The department instructs teachers to be extra careful on special cases and at the university level it works an office which assists students with disabilities. With all available support all students should have equal chances in achieving learning outcomes although ET recommends to publish such information with relevant regulations on the UP website.

UP offers the services of the Career Development Center (CDC), which is dedicated to assisting not only students and alumni from UP but also others seeking guidance. The CDC aims to facilitate personal and professional growth by offering a range of services including information provision, counselling, training, employer mediation, academic advising, and various other activities. While the CDC has a dedicated webpage linked to the faculty, there is a recognized need to further tailor its services to meet the specific requirements of students. More efforts are required to align the CDC's offerings with the unique demands of computer science students to ensure their successful career development.

The faculty has not established an alumni network and the alumni website is blank, therefore ET recommends to rethink and prepare a platform conducive to the creation of professional relations between them and the university.

**ET recommendations [timeline 1.5 year]:**

1. *Enhance the recognition of semesters spent at foreign universities to prevent course gaps during study abroad programs.*
2. *Strengthen efforts on advertisement of UP internationally to reach abroad students.*
3. *Publish information for available support for all student groups, including students with disabilities.*

4. *The career centre should be also focused specifically on the faculty rather than being generalised for the entire university.*
5. *The faculty should establish a good working alumni network to strengthen the beneficial connection of professionals with graduated HEI.*

## 6. RESEARCH

### Standard 6.1. The study program aligns with the institution's/academic unit's mission and the research strategic goals.

It is clear from the report as well as from the official documents of the university that the study program has well-defined scientific/applied research objectives, and these are fully in line with the research strategy of the University of Pristina. From a research point of view, the implementation of the study program is well supported by sufficient financial, logistic, and human resources of the institution. This will further be strengthened by the expected new building block of the faculty.

It is also clear that clear policies are present that define what recognized research means and how it must be related to international standards and established norms (notably in terms of indexed publications and ethical standards) in the field of Computer Science.

### Standard 6.2. The academic staff engaged in the study program is committed and supported to achieve high-quality research work and/or professional activity.

In terms of academic research productivity, some of the academic staff members demonstrate good quality and quantity of research. However, some other staff members have only very sporadic publications, their research activity cannot be considered as sufficient, even if the minimum requirement of the university is fulfilled. This minimum requirement is unexpectedly low (even for professors only 1 paper per year), and in the field of this specific study program, Computer Science, it is especially insufficient. Scientific professional activity must be intensified by the leaders of the faculty and the study program to reach a sufficient overall level of research for the entire staff.

Very few of the academic staff members publish their work in high-quality scientific journals (Q1-Q2), in spite of the relatively high level of financial support for these publications provided by the university. This financial remuneration can be a first step to improve the quality of publications, but further steps must be made to encourage staff members who are inactive for years to join a small research team or regularly publish individually.

**Standard 6.3 The academic staff engaged in the delivery of the study program is encouraged to participate in different aspects of cooperation with national and international partners.**

The academic staff engaged in this master study program, as every university staff member, has the opportunity to participate in international research or educational programmes. The faculty has living cooperation with various universities in the EHEA, which is definitely positive. Unfortunately this opportunity is effectively used only by a small fraction of the staff - this ratio could be increased by encouraging teachers to visit foreign universities for a short period.

The faculty also has a connection to various industrial and social partners in Kosovo, and staff members have the chance to cooperate with local business partners through joint research projects. Again, this opportunity is very unevenly used by the staff, beside very active members there are teachers who have no living connections to this sector. The cooperation with these stakeholders should be strengthened by all means, including strategies for development, knowledge transfer, and shared use of real life data and challenges when it is possible. As we have learned from the on-site interview, industrial partners are ready to support the study program more effectively, but the faculty has to make the first step towards these stakeholders.

**Standard 6.4 The teaching staff engaged in the study program has a proven record of research results on the same topics as their teaching activity.**

Some of the academic staff members regularly have research results in the specific field corresponding to their teaching activities. Unfortunately this does not hold for other members, and this situation must certainly be improved. At the same time it is positive that students are engaged in various research activities, but, again, very unevenly, and proportionally to their study program competencies. This level of engagement can evidently be increased by the application of the project-based learning approach in more courses in the 2nd and 3rd semesters.

**ET recommendations [timeline 2 year]:**

1. *Beside existing efforts, the scientific professional activity must be intensified by the leaders of the faculty and the study program to reach a sufficient overall level of research for the entire staff.*
2. *The number of higher quality international publications must be increased by the entire staff (not only by a few active members of the staff).*
3. *Industrial partners are ready to support the study program more effectively, but the faculty has to make the first step towards these stakeholders.*

## 7. INFRASTRUCTURE AND RESOURCES

### Standard 7.1. The HEI ensures adequate premises and equipment for performing education processes and research. ESG (1.6)

The Department of Mathematics operates in an area of 1388 m², providing cabinets for full-time and retired faculty, with part-time staff using meeting rooms equipped with necessary technology. The University utilizes software for student management, Google Classroom, and Google Meet for online interactions. A new facility will be available from October 2025, offering more space and equipment, addressing current limitations in classroom and laboratory sizes. The faculty's work equipment is divided between administrative and teaching needs. Current infrastructure lacks adequate support for students with special needs, but the new facility will include improvements such as ramps and lifts.

### Standard 7.2 The HEI ensures adequate library resources for study program. (ESG 1.6)

The physical register of books pertinent to the programs is located in the department library. The program has established a project to convert complete books into electronic format; however, this initiative did not succeed. The program will soon be reviving this project, allowing students to at least view the available books in the library. The library can accommodate approximately 15 students and boasts an extensive collection of books, dispensations, and scientific journals in Albanian, English, Serbo-Croatian, and other languages. The missing of subscribing to research database will affect negatively student achievement especially in their thesis.

### Standard 7.3 The study program is appropriately funded to deliver its intended educational activities and research. (ESG 1.6)

The University of Prishtina maintains its own financial resources, which are provided by the Government of Kosovo. A portion of these funds is designated for the Faculty of Mathematical Natural Sciences, which encompasses the Department of Mathematics. Over the next three years, the program must manage the expenses for staff, which will be covered by the University of Prishtina as the program’s guarantor and supporter. The computer laboratories are furnished with computers, and collaborations with the industry will soon commence for support, particularly in acquiring books or specialized equipment for scientific research within the program. Furthermore, the industry has so far shown willingness to assist us by setting up a classroom, donating laptops, and more.

**ET recommendations [timeline 1 year]:**

1. *The missing of subscribing to research database will affect negatively student achievement especially in their thesis.*

2. *Make certain that the infrastructure and resources allocated for the execution of the program adequately address the requirements of students with special needs.*
3. *Create a financial strategy that illustrates the viability and sustainability of the study program.*

## FINAL RECOMMENDATION OF THE ET

The general impression of the study program is positive; however, there is room for improvement to fully meet the standards and move the study program to a higher level.
Some important areas, such as technology transfer and intellectual property, are not regulated yet, so some policies need to be developed.
To attract international and Erasmus+ students, an English version of the university/study program must be developed.

| Standard | Compliance level |
|---|---|
| 1. Mission, objectives and administration | Substantially compliant |
| 2. Quality management | Fully compliant |
| 3. Academic staff | Fully compliant |
| 4. Educational process content | Substantially compliant |
| 5. Students | Substantially compliant |
| 6. Research | Partially compliant |
| 7. Infrastructure and resources | Substantially compliant |
| **Overall compliance** | **Substantially compliant** |

In conclusion, the Expert Team considers that the study program Master of Computer Sciences offered by the University of Prishtina is Substantially compliant with the standards included in the KAA Accreditation manual and, therefore, recommends reaccreditation of the study program for a duration of **3 years** with a number of **30 students** to be enrolled in the program per year.

**Expert Team**

**Chair**

| (Signature) | **Miklos Hoffman** (Print Name) | **12.12.2024** (Date) |
|---|---|---|

**Member**

| (Signature) | **Seifedine Kadry** (Print Name) | **12.12.2024** (Date) |
|---|---|---|

**Member**

| (Signature) | **Damian Michalik** (Print Name) | **12.12.2024** (Date) |
|---|---|---|