



Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

UNIVERSITY OF PRISHTINA "HASAN PRISHTINA"

Master (MA) of Applied Mathematics

PROGRAM ACCREDITATION

REPORT OF THE EXPERT TEAM

March 20th, 2023 Eger, Warsaw





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

Table of Contents

| 1. | INTE | RODUCTION | 3 |
|----|------|--|----|
| | 1.1. | Context | 3 |
| | 1.2. | Site visit schedule | 5 |
| | 1.3. | A brief overview of the institution under evaluation | 7 |
| 2. | PRO | GRAM EVALUATION | 8 |
| | 2.1. | Mission, Objectives and Administration | 8 |
| | 2.2. | Quality Management | 11 |
| | 2.3. | Academic Staff | 14 |
| | 2.4. | Educational Process Content | 17 |
| | 2.5. | Students | 21 |
| | 2.6. | Research | 24 |
| | 2.7. | Infrastructure and Resources | 27 |
| 3 | FINA | I RECOMMENDATION OF THE ET | 31 |





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

1. INTRODUCTION

1.1. Context

Date of site visit: March 7th, 2023

Expert Team (ET) members:

- Prof. Dr. Miklós Hoffmann
- Damian Michalik, Msc

Coordinators from Kosovo Accreditation Agency (KAA):

- Leona Kovaçi, SO for Evaluation and Monitoring
- Arianit Krasniqi, SO for Evaluation and Monitoring

Sources of information for the Report:

- Faculty of Mathematics and Natural Sciences Applied Mathematics MA. Self Evaluation Report 202
- Syllabuses
- CVs
- Kosovo Accreditation Agency Accreditation Manual 2022
- The Manual for External Evaluation of Higher Education Institutions, KAA 2021
- Interviews with stakeholders (site visit)
- University of Prishtina Statues
- University of Prishtina Strategic Plan
- University of Prishtina website

Additional documentation:

- Bachelor curricula of 'pure' mathematics, financial mathematics and computer science
- Templates and generic results of recent QA questionnaires
- Teaching staff performance card template





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

• Presented learning outcomes mapped on NQF

Criteria used for institutional and program evaluations

• Standards & performance indicators for external evaluation according to the Accreditation Manual of Kosovo Accreditation Agency, 2022





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

1.2. Site visit schedule

Site Visit Programme

| Time | Meeting | Participants |
|---------------|--|---|
| 09:00 – 09:50 | Meeting with the management of the faculty where the programme is integrated | Idriz Vehapi (Dean) Kajtaz Bllaca Ferim Gashi Arben Haziri (Vice deans) |
| 09.55 – 10.35 | Meeting with quality assurance representatives and administrative staff | Ilir Mazreku (Academic development office) Artan Alidema (Administration) |
| 10:45 – 11:45 | Meeting with the heads of the study programme | Bujar Fejzullahu Edmond Aliaga |
| 11:45 – 12.45 | Lunch break (provided at the evaluation site) | |
| 12:45 – 13:15 | Visiting tour of the facilities and infrastructure | |
| 13:15 – 14:05 | Meeting with teaching staff | Muhib Lohaj Armend Shabani Artan Berisha Ramadan Limani Astrit Ferizi |
| 14:10 – 14:55 | Meeting with employers of graduates and external stakeholders | Raifeeisen Bank, Odise Prime Company, Ninetyone holding, Inc. AAB College |





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

| 14:55 – 15:05 | Internal meeting of KAA staff and experts | |
|---------------|--|--|
| 15:05 – 15:15 | Closing meeting with the management of the faculty and program | |

1.3. A brief overview of the institution under evaluation

Faculty of Mathematics and Natural Sciences (FMNS) is an organisational unit of University of Prishtina (UP). The faculty was founded in 1971 by the decision of the Kosovo Parliament (Official Journal of ASP of Kosovo no. 37/71). Historically studies of natural sciences were commenced even in the 1960s within the scope of the Faculty of Philosophy. The objective curricula under evaluation is a new study programme of applied mathematics on a master (two-year studies) degree by FMNS and it's a continuation of mathematics, financial mathematics and computer science bachelor study programmes.

FMNS is governed by the Dean supported by Vice-Deans for teaching and student affairs, Vice-Dean for finance and infrastructure, Vice-Dean for quality and science affairs, and the Faculty Council. The latter is the principal policy-making body at the Faculty level which also oversees other academic-related activities. From the point of study programme, the mathematics departments are responsible for organising the whole academic process. Improvement of the study programme involves all stakeholders, the Advisory Board (members are industry representatives) and it is supervised by the Coordinator for Academic Development.

According to site-visit, the minimum number of students to run the study program is 5 but there is a desire to fulfil all 40 available spots. The curriculum among others aims to expand knowledge from theoretical and experimental mathematics, economics and computer science with a strong emphasis on practical exercises.

The programme aims to the achievement of necessary standards of studies in accordance with the model of studies based on the Bologna Treaty, with the structure of 4 semesters. It consists of courses which are focused on alignment of knowledge and many elective subjects to deepen professional skills.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

2. PROGRAM EVALUATION

2.1. Mission, Objectives and Administration

The newly developed master's study programme of applied mathematics is in compliance with the published institution mission and vision. Among others it is oriented to pursue key strategic goals in 'building capacity in strategic areas of economic and technical development which are crucial to Kosovo's institutions and industry' and 'equipping students with professional and academic competences'. The programme content is also well adjusted to European standards and international demands (see more in the section 4.1). The curriculum was designed on the basis of a theoretical mathematics study programme in the University of Zagreb and in accordance with Kosovo Qualification Framework. According to site-visit discussions and SER, design and improvement of the programme was also made by industry representatives who actively participate in the Advisory Board. Moreover, the idea of continuation of mathematical-oriented studies on the second degree came from bachelor students. After completing it, students may continue their studies at doctoral study programmes as well as work as professionals in banking and IT sector.

ET is satisfied with the didactic concept, however, no evidence of an overarching research concept was found. Research is going on according to SER, but a guiding concept on a more general level is missing. Defining a core area of scientific competence and their development into the future should be established. Ideally, it should have adequate support and interdisciplinary aspects.

The Faculty Council is the main academic body responsible for implementing internal policies and overseeing academic performance of the Faculty. It is also supported by the Study Commission which is responsible for drafting new study programs and approving and reviewing existing study programmes. All stakeholders are acquainted with policies and standards on recruiting procedural or academic issues. However, referring to the desire to attract foreign students highlighted in SER, more procedural documents should be available in English.

During the site-visit, ET has not observed any ethical issues, and because the study programme is not implemented yet, it is strongly recommended to closely monitor this topic and take measures to prevent fraudulent behaviour. In case of difficulties, at UP is set the ethics committee which deals with complex or general issues. Moreover, the available ethical codex on the institution website was published in 2013 therefore authorities should consider updating the document.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

| Standard | Compl | iance |
|--|-------|-------|
| | Yes | No |
| Standard 1.1. The study program mission is in compliance with the overall mission statement of the institution. | X | |
| Standard 1.2. Relevant academic and professional advice is considered when defining the intended learning outcomes which are consistent with the National Qualifications Framework and the Framework for Qualifications of the European Higher Education Area. | Х | |
| Standard 1.3. The study program has a well-defined overarching didactic and research concept. | X | |
| Standard 1.4. There are formal policies, guidelines and regulations dealing with recurring procedural or academic issues. These are made publicly available to all staff and students. | X | |
| Standard 1.5. All staff and students comply with the internal regulations relating to ethical conduct in research, teaching, and assessment in all academic and administrative activities. | X | |
| Standard 1.6. All policies, regulations, terms of reference and statements of responsibility relating to the management and delivery of the program are reviewed at least once every two years and amended as required in the light of changing circumstances. | n/a | n/a |

Compliance level: fully compliant

ET recommendations:





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

- 1. Within the developed study programme, an aligned research concept should be also designed to meet efficient students and teaching staff cooperation.
- 2. Update of the code of conduct considering formal protection mechanisms on the faculty level.
- 3. Further extension of administration policies and guidelines available in English.

2.2. Quality Management

After implementation of the study programme, there is the plan to use ongoing feedback tools, i.e. questionnaires collected from all relevant stakeholders and performance cards of teaching staff. Results from surveys will be used for improvements of the study programme and its components, and are passed to the Central Quality Assurance Committee. On the other hand, performance cards are going to assess teaching quality (including student surveys on particular courses) and research activity of academic staff. If the performance outcome of a teacher is not satisfying, the Dean is entitled to discuss issues or even forward staff on additional educational training/s. When there is no improvement in time, the contract with a teacher might be terminated.

According to received survey results on the faculty level, students assess the quality of teaching in general as high. Nevertheless, ET found that 3 components are evaluated slightly lower, i.e. discussion and activities in a classroom, usefulness of teaching materials and overall teacher assessment. These areas could be considered as a room for improvement, in particular for new study programmes at FMNS.

Moreover, ET has learned that for the learning outcomes and learning materials update are responsible teachers, however it is not formally regulated so it cannot be required by the authorities. The faculty representatives should specify periodicity and the way how learning outcomes as well as learning materials are revised.

Introduced formal and informal QA tools cover all important indicators for stakeholders. From the starting point of the study programme, it is necessary to properly implement adequate indicators and ensure effective internal and external evaluations which could bring many benefits to dynamically solve issues and find good practices. It is also important to highlight that the regulation on quality assurance (available on the website) has been updated in 2021 which assures regular evaluation and improvement of quality assurance arrangements.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

As an additional recommendation the ET considers appreciation of academic staff efforts in the form of an award. Additional motivation in teaching, scientific or administrative activity for top Faculty staff can have a positive impact on their performance.

| Standard | Compliance | |
|--|------------|----|
| Standard | Yes | No |
| Standard 2.1. All staff participate in self-evaluations and cooperate with reporting and improvement processes in their sphere of activity. | X | |
| Standard 2.2. Evaluation processes and planning for improvement are integrated into normal planning processes. | X | |
| Standard 2.3. Quality assurance processes deal with all aspects of program planning and delivery, including services and resources provided by other parts of the institution. | X | |
| Standard 2.4. Quality evaluations provide an overview of quality issues for the overall program as well as of different components within it; the evaluations consider inputs, processes and outputs, with particular attention given to learning outcomes for students. | X | |
| Standard 2.5. Quality assurance processes ensure both that required standards are met and that there is continuing improvement in performance. | X | |
| Standard 2.6. Survey data is being collected from students, graduates and employers; the results of these evaluations are made publicly available. | X | |





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

| Standard 2.7. Results of the internal quality assurance system are taken into account for further development of the study program. This includes evaluation results, investigation of the student workload, academic success and employment of graduates. | х | |
|--|---|--|
| Standard 2.8. The institution ensures that reports on the overall quality of the program are prepared periodically (eg. every three years) for consideration within the institution indicating its strengths and weaknesses. | Х | |
| Standard 2.9. The quality assurance arrangements for the program are themselves regularly evaluated and improved. | X | |

Compliance level: fully compliant

ET recommendations:

- 1. Improvement in area of discussion and activities in a classroom, usefulness of teaching materials and overall teacher assessment.
- 2. Clear guidelines or policy on teaching materials refreshment.
- 3. Introduce additional motivation mechanisms for appreciation of academic staff efforts.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

2.3. Academic Staff

As we have learned in the site visit, the academic staff is overall committed to the success of the new study programme. Some of them also have some industrial experience, which can certainly help to provide relevant knowledge in this programme. Staff members are fully aware of their responsibilities, and also the need for their own professional development and advancement. Their employment conditions and requirements are clearly defined in the official documents of the University.

The educational and scientific achievements of the academic staff are evaluated regularly, and the staff receives detailed feedback about it. This is clearly positive. The level of scientific research of the current staff is rather limited, this must be strengthened by financial and scientific support in order to realistically open the path of the staff members for higher level positions.

A serious issue is that while lectures are 100% covered by university professors, labs are very much left for external, inviting temporary staff. This obviously carries a serious risk, since on the one hand, the department cannot be sure that they will always find the right person for the right course, and on the other hand, the quality control of these temporary staff is doubtful, since they are not committed to the university in the long term. In this regard, the university must develop a solid HR strategy, which is not clearly present and not systematic at the time of accreditation.

One short-term solution could be the increase of the possible number of extra courses (above the compulsory 6 hours teaching load) for the permanent staff, which is currently rather restricted. At the same time, by recruiting further staff members, the currently high level of ECTS/staff should also be decreased significantly on a long term basis.

Core subjects of the curriculum are covered mostly by 1-1 academic staff. This is a further risk, since it is not clearly explained what happens if he/she is out of work. Having that said, this study programme can provide an excellent opportunity to recruit new staff members. Although the university provide some support for young colleagues, more efforts should be made to effectively support young researchers with MSc to obtain their PhD as soon as they can. In this regard, more opportunities and financial support should be provided for further development of the current permanent staff as well, for example to visit more conferences or to have a sabbatical in another European university. On the other side, it is a good practice that education training are necessary and available for being an associate professor.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

| Standard | Compliance | |
|---|------------|----|
| | Yes | No |
| Standard 3.1. Candidates for employment are provided with full position descriptions and conditions of employment. To be presented in tabular form data about full time (FT) and part time (PT) academic/artistic staff, such as: name, qualification, academic title, duration of official (valid) contract, workload for teaching, exams, consulting, administrative activities, research, etc. for the study program under evaluation. | x | |
| Standard 3.2. The teaching staff must comply with the legal requirements concerning the occupation of teaching positions included in the Administrative instruction on Accreditation. | х | |
| Standard 3.3. Academic staff do not cover, within an academic year, more than two teaching positions (one full-time, one part-time), regardless of the educational institution where they carry out their activity. | х | |
| Standard 3.4. At least 50% of the academic staff in the study program are full time employees, and account for at least 50% of the classes of the study program. | х | 9 |





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

| Standard 3.5. For each student group (defined by the statute of the institution) and for every 60 ECTS credits in the study program, the institution has employed at least one full time staff with PhD title or equivalent title in the case of artistic/applied science institutions. | х | |
|---|---|---|
| Standard 3.6. Opportunities are provided for additional professional development of teaching staff, with special assistance given to any who are facing difficulties. | | х |
| Standard 3.7. The responsibilities of all teaching staff, especially full-time, include the engagement in the academic community, availability for consultations with students and community service. | х | |
| Standard 3.8. Academic staff evaluation is conducted regularly at least through self evaluation, students, peer and superiors' evaluations, and occurs on a formal basis at least once each year. The results of the evaluation are made publicly available. | х | H |
| Standard 3.9. Strategies for quality enhancement include improving the teaching strategies and quality of learning materials. | | х |
| Standard 3.10. Teachers retired at age limit or for other reasons lose the status of full-time teachers and are considered part-time teachers. | х | |

Compliance level: substantially compliant

ET recommendations:

- 1. A solid HR strategy should be developed in order to significantly decrease the involvement of external temporary staff.
- 2. Effective support should be given to permanent staff members with MSc degree to obtain their PhD at their earliest convenience.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

3. The high level of ECTS/staff member ratio should be decreased in the long term.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

2.4. Educational Process Content

The study programme content is a good example of interdisciplinary and flexible studies between mathematics, its financial applications and computer sciences. The general qualifications are well-described, additionally, students are able to curve their own paths due to elective subjects (30% of ECTS credits). Moreover, many courses might be conducted in English with the mutual consent of students and a teacher. Thus this approach additionally extends possibly acquired skills which are demanded either in academia or the labour market. However, we note that in its current form the study programme is not suitable for receiving students who are not native Albanian speakers.

The curriculum and the study programme is fully in line with legal requirements, the National Qualification Framework and the Framework for Qualifications of the European Higher Education Area as well.

The study programme is a good mixture of theoretical and applied courses. However, the current curriculum does not take into account the different knowledge and skills of those who came from different Bachelor programmes. Students can come from three, quite different BSc programmes, which is usually remedied with different recommended follow-up courses in the first semester in this type of master's programme. During the onsite visit the academic staff members have acknowledged that this can be an issue. Moreover, a system of modules or sets of different courses could be provided to better support the various orientations of the students.

Apart from this issue the curriculum contains the necessary courses on the basis of which students can acquire the required skills and competences. These skills will enable the graduates to stand their ground either in the academic field or in companies. The teaching methodologies fit well for the courses and the expected outcomes. Due to the nature of the field, there is no need for very specific teaching materials, but everything needed is ready to use. Student achievements are planned to be assessed by applying standard methods of the field, and further processes are also in line with the standards of the European Higher Education Area.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

| Standard | Compliance | |
|--|------------|----|
| Standard | Yes | No |
| Standard 4.1. The study program is modelled on qualification objectives. These include subject-related and interdisciplinary aspects as well as the acquisition of disciplinary, methodological and generic skills and competencies. The aspects refer especially to academic or artistic competencies, to the capability of taking up adequate employment, contributing to the civil society and of developing the students' personality. | X | |
| Standard 4.2. The study program complies with the National Qualifications Framework and the Framework for Qualifications of the European Higher Education Area. The individual components of the program are combined in a way to best achieve the specified qualification objectives and provide for adequate forms of teaching and learning. | х | |
| Standard 4.3. The disciplines within the curriculum are provided in a logical flow and meet the definition and precise determination of the general and specific competencies, as well as the compatibility with the study programs and curricula delivered in the EHEA. To list at least 7 learning outcomes for the study program under evaluation. | | X |





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

| Standard 4.4. The disciplines within the curriculum have analytical syllabuses which comprise at least the following: the discipline's objectives, the basic thematic content, learning outcomes, the distribution of classes, seminars and applicative activities, students' assessment system, the minimal bibliography, etc. The full course description/ syllabuses of each subject/ module should be attached only in electronic form to the self-assessment report for the study program under evaluation | х | |
|---|-----|-----|
| Standard 4.5. If the language of instruction is other than Albanian, actions are taken to ensure that language skills of both students and academic staff are adequate for instruction in that language when students begin their studies. This may be done through language training prior to the commencement of the program. | n/a | n/a |
| Standard 4.6. The student-teacher relationship is a partnership in which each assumes the responsibility of reaching the learning outcomes. Learning outcomes are explained and discussed with students from the perspective of their relevance to the students' development. | x | |
| Standard 4.7. Teaching strategies are fit for the different types of learning outcomes programs are intended to develop. Strategies of teaching and assessment set out in program and course specifications are followed with flexibility to meet the needs of different groups of students. | х | |
| Standard 4.8. Student assessment mechanisms are conducted fairly and objectively, are appropriate for the different forms of learning sought and are clearly communicated to students at the beginning of courses. | х | |





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

| Standard 4.9. Appropriate, valid and reliable mechanisms are used for verifying standards of student achievement. The standard of work required for different grades is consistent over time, comparable in courses offered within a program, and in comparison with other study programs at highly regarded institutions. | х | |
|---|---|--|
| Standard 4.10. Policies and procedures include actions to be taken in to dealing with situations where standards of student achievement are inadequate or inconsistently assessed. | х | |
| Standard 4.11. If the study program includes practice stages, the intended student learning outcomes are clearly specified and effective processes are followed to ensure that those learning outcomes and the strategies to develop that learning are understood by students. The practice stages are allocated ETCS credits and the work of the students at the practical training organisations is monitored through activity reports; students during practice stages have assigned tutors among the academic staff in the study program. | х | |
| Standard 4.12. In order to facilitate the practice stages, the higher education institution signs cooperation agreements, contracts or other documents with institutions/organisations/practical training units. | х | |

Compliance level: substantially compliant

ET recommendations:

- 1. For incoming students with different Bachelor degrees, follow-up courses should be offered in the first part of the programme to reach the necessary levels in each subfield.
- 2. A kind of recommended module-based system should be provided to better support the different scientific orientations of students.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

2.5. Students

Implemented by the Faculty, admission procedures are regulated by the Statute of UP with the Regulation for Master Studies. The call for student enrolment in the new academic year will have 40 slots, after acceptance of the study programme. Candidates are informed through the call about requirements aligned with MEST, necessary documents and application procedure. The registration may be made remotely through the UP website. Prospective students of the programme have to complete a bachelor's program. Details are set out in a specific regulation. Candidates are going to be treated equally throughout the admission process.

Academic courses provided by FMNS are adequately dimensioned in the case of student numbers. At the Faculty certain limitations of student groups sizes are introduced, i.e. the maximum number of students per lectureStudents have a possibility to receive a scholarship on their learning performance. All students with grades above 8 are allowed to issue this additional financial support. and seminar is 70, per theoretical exercises 25 and per practical exercises 12 students. Declared cohorts of students should foster learning processes and ensure achieving learning outcomes by students. To involve all students in a proactive manner, teaching staff regularly use different teaching methods, i.a. project-oriented tasks or brainstorming. Online didactical tools introduced during the Covid-19 pandemic were recognized as highly supportive so are still in use within the learning process.

According to SER, after each assessment, periodic or final, students are well notified about their results in individual electronic cards and have a possibility to dispel doubts on consultations or courses. As the applied mathematics programme might be implemented in the next academic year and it lasts only 2 years, it is important to keep up with exams or colloquiums in agreed terms with students. Students have also a possibility to receive a scholarship on their learning performance (with grades above 8).

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 website.

UP collects and analyses the pass rate and grades in SEMS. According to the site visit, documentation related to student examination is kept indefinitely and colloquium sheets are stored for at least three years. As ET, in this case, deals with the new study programme it





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

suggests to start ongoing monitoring from the very beginning and transfer data accordingly to the QA system.

During the site-visit, ET fully understood that the available systems for the detection of plagiarism do not support the Albanian language and this is mainly the supervisor's duty. Nevertheless, a high burden of responsibility is set on teachers therefore clear guides should be implemented at the faculty, in particular for writing works. Moreover, in terms of quick development of machine learning tools it is also recommended to make tasks more creative and unconventional.

Students' rights and obligations are published in the student handbook and contain the important right to appeal. Students should be also aware of possible transfer between higher education institutions, faculties and study programmes. Thus, besides available documentation, at the beginning of the study programme it is worth conducting a meeting with students about available support.

| Standard | Compliance | |
|--|------------|----|
| | Yes | No |
| Standard 5.1. There is a clear and formally adopted admission procedure at institutional level that the study program respects when organising students' recruitment. Admission requirements are consistently and fairly applied for all students. | X | |
| Standard 5.2. All students enrolled in the study program possess a high school graduation diploma or other equivalent document of study, according to MEST requirements. | X | |
| Standard 5.3. The study groups are dimensioned so as to ensure an effective and interactive teaching and learning process. | X | |





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

| Standard 5.4. Feedback to students on their performance and results of assessments is given promptly and accompanied by mechanisms for assistance if needed. | X | |
|---|---|--|
| Standard 5.5. The results obtained by the students throughout the study cycles are certified by the academic record. | X | |
| Standard 5.6. Flexible treatment of students in special situations is ensured with respect to deadlines and formal requirements in the program and to all examinations. | X | |
| Standard 5.7. Records of student completion rates are kept for all courses and for the program as a whole and included among quality indicators. | X | |
| Standard 5.8. Effective procedures are being used to ensure that work submitted by students is original. | X | |
| Standard 5.9. Students' rights and obligations are made publicly available, promoted to all those concerned and enforced equitably; these will include the right to academic appeals. | X | |
| Standard 5.10. The students' transfer between higher education institutions, faculties and study programs is clearly regulated in formal internal documents. | X | |
| Standard 5.11. Academic staff is available at sufficient scheduled times for consultation and advice to students. Adequate tutorial assistance is provided to ensure understanding and ability to apply learning. | X | |



Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency



Compliance level: fully compliant

ET recommendations:

- 1. Publish information on the UP website about support available for students with disabilities.
- 2. Establish antiplagiarism policy or guidelines on the faculty level.

2.6. Research

The study programme itself, being a Master, has to provide research opportunities to those students interested in the academic career. It is a very good practice that in the case of governmental projects there is a requirement of the engagement of at least 2 students. Having that said, the programme and the department itself has no clear, well-defined research strategy, only occasional research topics and groups exist.

Moreover, apart from these projects, the staff is practically not involved in large-scale, European research projects, which is a drawback, and a place where significant improvement is a must. Most of the staff members have individual research topics, they do not form a sufficient number of internal research groups. Due to the interdisciplinary nature of the current study programme, this type of research should be encouraged among the staff members and with students as well.

The individual projects (for example Erasmus and Ceepus visits), as a first step towards the aim of larger projects, can certainly help the academic staff members to find the right research topic, create research networks and consortia or join to consortia with European universities. Since most of the academic staff members have completed their PhD studies outside of Kosovo these relationships could and should be used for this purpose.

The regulations of academic achievements are well defined for each level, although the number of required publications is quite low (assistant professor 1, associated professor 3, full professor 5 publications), and the quality of the publications, for example by using the European standard Scimago quartiles, is not defined. These regulations of advancement are set out in the Regulation on Selection Procedures for Appointment, Not Appointment and Advancement of Academic Personnel at the University of Prishtina "Hasan Prishtina". However, there is no systematic (e.g. yearly) regulations in between two levels. The quality of the track record and publication list of staff members shows great variety in this sense.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

It is clearly positive that one conference per year is supported by the Faculty and one additional conference is supported by the government. This must be used for each staff member to widen the research horizon of the department. Researchers have access to a few scientific database in the university, but more of such database must be available on a long term basis.

| Standard | Compl | liance |
|--|-------|--------|
| | Yes | No |
| Standard 6.1. The study program has defined scientific/applied research objectives (on its own or as part of a research centre or interdisciplinary program), which are also reflected in the research development plan of the institution; sufficient financial, logistic and numan resources are allocated for achieving the proposed research objectives. | | X |
| Standard 6.2. Expectations for teaching staff involvement in research and scholarly activities are clearly specified, and performance in relation to these expectations is considered in staff evaluation and promotion criteria. | x | |
| Standard 6.3. Clear policies are established for defining what is recognized as research, consistent with international standards and established norms in the field of study of the program. | х | |
| Standard 6.4. The academic staff has a proven track record of research results on the same topics as their teaching activity. | | х |





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

| Standard 6.5. The academic and research staff publish their work in speciality magazines or publishing houses, scientific/applied/artistic products are presented at conferences, sessions, symposiums, seminars etc. and contracts, expertise, consultancy, conventions, etc. are provided to partners inside the country and/or abroad. | x | |
|---|---|---|
| Standard 6.6. Research is validated through: scientific and applied research publications, artistic products, technological transfer through consultancy centres, scientific parks and other structures for validation. | х | |
| Standard 6.7. Each academic staff member and researcher has produced at least an average of one scientific/applied research publication or artistic outcome/product per year for the past three years. | | х |
| Standard 6.8. Academic and research staff publish under the name of the institution in Kosovo they are affiliated to as full-time staff. | х | |
| Standard 6.8.(1) Academic staff are encouraged to include in their teaching information about their research and scholarly activities that are relevant to courses they teach, together with other significant research developments in the field. | x | |
| Standard 6.9. Policies are established for ownership of intellectual property and clear procedures set out for commercialization of ideas developed by staff and students. | x | |
| Standard 6.10. Students are engaged in research projects and other activities. | х | |

Compliance level: substantially compliant





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

ET recommendations:

- 1. A clear, long-term, well-defined research strategy must be established.
- 2. Beside the quantitative regulations, the quality of the publications, for example by using the European standard Scimago quartiles, must be prescribed
- 3. Proposals to large-scale, European research projects should be submitted. For this, research networks and consortia with European universities should be established.

2.7. Infrastructure and Resources

The overall infrastructure of UP is sufficient to provide the study programme of applied mathematics and is partially adapted to students with special needs but there is still room for improvement in a few areas. First of all, the building of FMNS is not a modern one therefore in some places it requires renovation or greater adaptation towards internal stakeholders needs. Fortunately the faculty authorities are aware of these demands and are eager to improve infrastructure within available financial resources. Moreover, at the end of the next calendar year the new faculty building will be put into service so it should solve many local-like problems like group work rooms or more space for computer laboratories and mathematical exercises.

The current number of classrooms and available equipment (assigned to the faculty) allow covering the new study programme within actual learning capabilities. At the site-visit, ET verified installed hardware intended for designed courses and discussed software which is going to be used (mostly free of charge). This part of the review indicated that it fulfils all relevant criteria but further development and ongoing adjustment to the labour market is inevitable nowadays. Notwithstanding, within human resources ET sees a slight risk on planned outsourced teaching and/or research staff. It is not a wrong practice, in particular to some extent, but it is against sustainability in the long term. To improve this aspect, a clear teaching staff strategy should be set in time.





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

As the new study programme is both research and practice oriented, access to literature and recent findings of the field is a must. The faculty has its own 60-metre-squared library with relevant literature and computers. Although at the time of site visit the number of books in the core topics of mathematics is limited, at the beginning it should meet an additional number of students and teachers defined in SER.

| Standard | | Compliance | |
|--|-----|------------|--|
| | Yes | No | |
| Standard 7.1. The adequate long-term implementation of the study program is ensured in quantitative terms as regards premises, human resources and equipment. At the same time, it is guaranteed that qualitative aspects are also taken into account. | X | | |
| Standard 7.2. There is a financial plan at the level of the study program that would demonstrate the sustainability of the study program for the next minimum three years. | X | | |





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

| Standard 7.3. The higher education institution must demonstrate with adequate documents (property deeds, lease contracts, inventories, invoices etc.) that, for the study program submitted for evaluation it possesses the following, for the next at least three years: | | |
|--|---|--|
| a) owned or rented spaces adequate for the educational process; | | |
| b) owned or rented laboratories , with the adequate equipment for all the compulsory disciplines within the curriculum, wherever the analytical syllabus includes such activities; | X | |
| c) adequate software for the disciplines of study included in the curriculum, with utilisation licence; | | |
| d) library equipped with reading rooms, group work rooms and its own book stock according to the disciplines included in the curricula. | | |
| Standard 7.4. The number of seats in the lecture rooms, seminar rooms and laboratories must be related to the study groups' size (series, groups, subgroups); the applicative activities for the speciality disciplines included in the curricula are carried out in laboratories equipped with IT equipment. | X | |





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

| Standard 7.5. The education institution's libraries must ensure, for each of the study programs: a) a number of seats in the reading rooms corresponding to at least 10% of the total number of students in the study program; b) a number of seats in the group work rooms corresponding to at least 10% of the total number of students in the study program; c) their own book stock from Albanian and foreign speciality literature, enough to cover the disciplines within the curricula, out of which at least 50% should represent book titles or speciality courses of recognised publishers, from the last 10 years; | | X | |
|--|---|---|--|
| d) a book stock within its own library with a sufficient number of books so as to cover the needs of all students in the cycle and year of study the respective discipline is provided for; | | | |
| e) a sufficient number of subscriptions to Albanian and foreign publications and periodicals, according to the stated mission. | | | |
| Standard 7.6. The infrastructure and facilities dedicated to the implementation of the program is adapted to students with special needs. | X | | |

Compliance level: substantially compliant

ET recommendations:

- 1. Verify demand on lecture, exercise and laboratory rooms among all study programmes conducted by Department of Mathematics and adequately address it in the new faculty building
- 2. Plan teaching and research staff extension for the new study programme to avoid the risk within outsourced personnel
- 3. Further development on available books and access to scientific journals





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency





Agjencia e Kosovës për Akreditim Agencija Kosova za Akreditaciju Kosovo Accreditation Agency

3. FINAL RECOMMENDATION OF THE ET

The experts would like to thank all the participants of the site visit, and the staff members who prepared the SER for their valuable help and support throughout the accreditation process. Considering the documentation provided and the findings of the site visit, the Accreditation Panel recommends the following:

- 1. Mission, objectives and administration: fully compliant
- 2. Quality management: fully compliant
- 3. Academic Staff: substantially compliant
- 4. Educational Process Content: substantially compliant
- 5. Students: fully compliant
- 6. Research: substantially compliant
- 7. Infrastructure and resources: substantially compliant

Compliance level: substantially compliant

Student quota recommended/Three or Five Years: 20 students/ Five years*

*The department will need 3 years from now to settle in the new building

Expert Team

| Member | | |
|-------------|----------------|-------------------------------|
| A los | Mikós Hoffmann | March 20 th , 2023 |
| (Signature) | (Print Name) | (Date) |

Member

| Damian Michalik | Damian Michalik | March 20th, 2023 |
|-----------------|-----------------|------------------|
| (Signature) | (Print Name) | (Date) |