UNIVERSITY OF PRISHTINA

MASTER OF SCIENCE PHYSICAL AND INORGANIC CHEMISTRY

RE-ACCREDITATION

REPORT OF THE EXPERT TEAM

Site visit: On-line. April 8th, 2021

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1. INTRODUCTION

1.1. Context

Date of site visit:

Expert Team (ET) members:

- Delia Gologan MSc. (student expert)
- Prof. Dr. Herbert Störi

Coordinators from Kosovo Accreditation Agency (KAA):

- Naim Gashi, Executive Director of KAA
- Shkelzen Gerxhaliu, Senior Officer for Evaluation and Monitoring
- Arianit Krasniqi, Senior Officer for Evaluation and Accreditation
- Leona Kovaci, Senior Officer for Evaluation and Monitoring
- Ilirjane Ademaj, Senior Officer for Evaluation and Monitoring

Sources of information for the Report:

- Self-evaluation report "Master of Science Physical and inorganic Chemistry", 2020 (no precise date) including course catalogue;
- KAA Accreditation Manual 11.07.2018;
- Syllabi;
- Staff CVs (Full time, part time);
- The video presenting the premises of the faculty;

The following material was supplied on April 7th, the day before the site visit upon request

- *Msc_Physical and Inorganic Chemistry (another version of the Self-evaluation report, including some parts, missing from the SER supplied first)*
- Missing CVs

The following material was supplied the after the site visit upon request

- Accreditation Report Faculty of Mathematics and Natural Sciences University of Prishtina (2016)
- *Reply to requests*
- Statute of UP
- Code of Ethics
- *Regulation for msc studies (only an amendment to the full document)*
- Student Academic Mobility

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• STUDENT EVALUATION FOR TEACHING AND COURSES (a form)

Criteria used for program evaluation:

- Standards for external evaluation re-accreditation of study programs (Accreditation Manual of KAA, July 2018, Chapter 2.2) According to an email by KAA performance indicators are not to be applied;
- Subject relevant criteria concerning quality of teaching and research;
- European Standards and Guidelines for Quality Assurance (ESGs);

1.2. Site visit schedule

8th April

09.00 – 09.40 Meeting with the management of the faculty where the programme is integrated (*no slide presentation is allowed, the meeting is intended as a free discussion*)

| 09.45 - 10:30 | Meeting with quality assurance representatives and administrative staff |
|---------------|---|
| 10.35 - 11.35 | Meeting with the heads of the study programme |
| 11:35 - 12:10 | Lunch break |
| 12.10 - 12:50 | Meeting with teaching staff |
| 12.55 - 13.40 | Meeting with students |
| 13.45 – 14.25 | Meeting with graduates |
| 14.30 - 15.10 | Meeting with employers of graduates |
| 15.10 - 15.20 | Internal meeting of KAA staff and experts |
| 15:20 - 15:30 | Closing meeting with the management of the faculty and program |

Observation: due to health issues and measures for preventing the spread of COVID-19, in most of the sessions there were only two participants present at the discussions with the ET.

1.3. A brief overview of the institution and program under evaluation

The University of Prishtina (UP) is the largest University in Kosovo, offering a diverse array of programs (bachelor, masters, and doctorate) in different Faculties and fields of study, including programs in mathematics and natural sciences. The studies in the field of mathematics and natural sciences (mathematics, physics, chemistry, biology and geography) at the University of Prishtina are organized in the Faculty of Mathematical and Natural Sciences (FMNS), composed of five departments: Chemistry, Biology, Physics, Geography and Mathematics.

Mission and objectives of the university: <u>Mission:</u> "University of Prishtina is an autonomous public institution of higher education that develops academic education, scientific research, artistic creativity, professional counselling and other areas of academic activities" (article 6 of the UP Statute).

The specific objectives of the University of Prishtina are:

- To act as an institutional and leadership centre for advancing the knowledge, creative ideas and science in the Kosovo higher education system,
- To have a leading role in the development of education, science, culture, society and economy of Kosovo,
- To actively participate in the process of promoting civic democracy,
- To create and support the highest standards in teaching and learning, scientific research as well as in and artistic creativity,
- To utilize its resources in the most efficient way,
- To maximize the cooperation and participation in higher education activities at national, regional and international level,
- To adapt to European standards,
- To be fully integrated into the European Higher Education Area, the European Research Area and to undertake the appropriate reform steps needed to achieve this mission.

Faculty of Mathematical and Natural Sciences (FMNS)

FMNS actually has five departments with respective programs as follow: **Department of Chemistry** (study programs: Chemistry BSc., Engineering Chemistry BSc., Physical and Inorganic Chemistry MSc., Organic Chemistry BSc., Analytical and Environmental Chemistry BSc. and Chemistry PhD), **Department of Mathematics** (study programs: Mathematics BSC., Financial Mathematics in banking and insurance BSc., Computer Sciences BSc. and Mathematics MSc.), **Department of Physics** (study programs: Physics BSc. and Physics MSc.), **Department of Biology** (study programs: Biology BSc., Ecology and Environmental

Protection BSc., Ecology and Environmental protection MSc. and Biology of organisms and ecology PhD), **Department of Geography** (study programs: Geography BSc. and Geography MSc.)

Department of Chemistry

Study programs in the Department of Chemistry are – probably as all other programs at UP - organized along the line of the Bologna declaration. There are 4 Bachelor programs, a Master program and a PhD program.

Remark: The two versions of the SER are contradictory on the question, whether Organic Chemistry and. Analytical and Environmental Chemistry are actually bachelor or master programs. We assume, that the originally delivered SER, dated 2020, describes the present situation.

MSc Physical and Inorganic Chemistry

The present report is concerned with the reaccreditation of the only Master program "MSc Physical and Inorganic Chemistry".

2. PROGRAM EVALUATION

2.1. Mission, objectives and administration

The updated SER received on April 7th contains a chapter dedicated to the standards specified in this area (2.1), whereas the original SER does not contain such a chapter. The Expert Team (ET) picked up information relevant to this section from the other general areas of the SER and the online site-visit. There is a SWOT analysis regarding this chapter, containing under "Strength" statements concerning mission, objectives and learning outcomes of the program. The part "Weaknesses" correctly recognizes the lack of courses taught is a language other than Albanian, e.g. in English by a visiting professor or in a minority language. Another recognized weakness is the small number of elective courses. The number of students is very small (8 per year), even if the number of students to be admitted has been increased from 10 to 15 per year, probably in response to the last evaluation report of 2016. An active effort to increase the enrollment into this program would be advisable. An aspect to be note is the fact, that this is now the only master program in chemistry, compared to 3 master programs 5 years ago, whereas the number of bachelor programs has increased from 2 to 4 in the same period.

During the site visit a desired expansion of teaching and research in the direction of materials and nano-science has been mentioned. While this is a reasonable idea in principle, it should be implemented within the framework of an overarching didactic and research concept of the offered programs including the one evaluated now (Standard 1.3).

Standard 1.1. The study program mission is in compliance with the overall mission statement of the institution.

A mission statement for the study program has been provided in response to a request by the evaluation team. This statement is incompliance with the mission statement of the UP.

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.

The program is aligned with relevant standards and there are professional links with a number of academic institutions in the European Union.

Standard 1.3. The study program has a well-defined overarching didactic and research concept.

There is no such concept in written form (SER), even if it is clear from discussions, that there is an idea of future directions of development for the program and those directions are pursued in teaching and research.

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.

The program is offered within the faculty of Mathematical Natural Sciences and follows the policies and regulations of the University of Pristina `Hasan Prishtina`. The statute of UP has been delivered and contains numerous regulations of academic procedures. The SER mentions several such internal regulations like: admission procedures, QA procedures, the university statute etc. However, the ET could not check whether they are publicly available due to some technical problems with the website of the university. Nevertheless, stakeholders participating in the online site-visit confirmed they are aware of their rights and responsibilities, thus proving they were informed about the policies, guidelines and regulations.

Standard 1.5. All staff and students comply with the internal regulations relating to ethical conduct in research, teaching, assessment in all academic and administrative activities.

In addition to what was mentioned above (Standard 1.4) the ET wants to highlight that knowing the regulations does not automatically imply that the academic community is following them. Therefore, the ET recommends the faculty to develop mechanisms to monitor this (no evidence of any instrument or procedure of this kind was provided in the SER/during the online site-visit). There is one mentionable exception: The code of ethics of UP has been supplied to the experts upon request and there is a Commission for Ethics responsible for monitoring whether the Code of Ethics is followed and to solve situations of misconduct.

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.

According to a statement during the site visit, they are reviewed every three years in line with the external accreditation. As the present accreditation is delayed due to COVID-19, the last accreditation happened 2016.

Compliance level: Substantially compliant

ET recommendations:

- 1. Create or update documents, stating mission, objectives, as well as the didactic and research concept of the program. The didactic and research concept may contain an outlook to future thematic changes, e.g. an expansion towards materials and nanoscience
- 2. Ensure, that all relevant regulations are reviewed every second year, i.e. between the external evaluations. Possibly most of the documents need not actually be changed, but

only checked for potential improvements/adaptation to the new developments of the program and the date of the review documented.

- 3. Publish all rules and regulations online.
- 4. Develop instruments to monitor whether the academic community is following the internal policies, guidelines and regulations.

2.2. Quality management

The commitment of the faculty management towards quality assurance was affirmed both within the SER and during the online site-visit. This is proved by the existance of a Vice Rector whose portfolio covers QA as well as by the development of specific offices/structures to deal with QA procedures within the university – e.g. the office for academic development, the Committee for QA.

The ET would like to mention that making the presence of a student within the QA structures conditional upon their grades is not a common international practice and should be avoided. The benefit of the student involved in QA structures is that it brings along the student perspective about the process (since they are part of the academic community, beneficiaries of the educational process and one of the groups evaluating the quality of the program).

Standard 2.1. All staff participate in self-evaluations and cooperate with reporting and improvement processes in their sphere of activity.

The SER does not mention an individual self-evaluation, but does mention that the Selfevaluation report prepared for the external evaluation of the program was drafted by the Central Committee of QA. This is an university-level structure that includes representatives of the QA structures, students and academic staff. The ET feels that the SER should be written by someone more in contact with the evaluated program, so it would better include perspectives of people really involved, i.e. academic staff and students of the program, administrative staff and employers.

Standard 2.2. Evaluation processes and planning for improvement are integrated into normal planning processes.

As far as the ET could evaluate, the processes described as part of the QA system are already planned and integrated in the usual academic calendar (for e.g. the students evaluate their teachers at the end of each semester). For example, the SER mentions " Program Accreditation Assessment fits the dynamics of program accreditation".

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.

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AKA | Qendra e Studentëve, kati 2-të, 10000 Prishtinë, Kosovë Tel. +381 38 213722 | Fax +381 38 213087 | www.akreditimi-ks.org Both the SER and the online site-visit indicated that the QA system includes several instruments for collecting data about the teaching process and the research activity. However, it is not clear whether the surveys implemented address the issues of infrastructure, services and resources. Data on these aspects of the program should be collected and analysed periodically to identify the priority areas for future investments.

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.

The SER describes a complex QA system that includes: monitoring the research activity: `Collects and reports data on each activity as required by the Vice Rector for Academic Development to demonstrate rate of progress from current state to desired one` [SER, p.12]. There is no proof that the QA processes also monitor the progress of students towards meeting the pre-set learning outcomes.

Standard 2.5. Quality assurance processes ensure both that required standards are met and that there is continuing improvement in performance.

The SER mentions that based on the results of the evaluation process, the dean has the responsibility to propose an action plan for improvement of the program [SER, p.12] The SER also mentions some quality standards, but not referring to internal quality standards, but rather the KAA standards. The ET recommends the faculty management to consider developing their own standards based on the KAA standards, and adapted to the realities of the programmes the faculty offers.

Standard 2.6. Survey data is being collected from students, graduates and employers; the results of these evaluations are made publicly available.

The SER and the online site-visit indicated that the QA system comprises questionnaires for students, administrative staff and teachers. The ET recommends the development of such instruments for collecting feedback about the program both from graduates and from employers. The ET could not check whether the evaluation reports is published on the website of the faculty and recommends to the Faculty management to make sure that at least a summary report is provided publicly. It is recommended that such a report is accompanied by a plan of measures that the faculty intends to implement for the improvement of the programme.

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.

As mentioned in standard 2.5, results of the internal QA system are used as a basis for an action plan dedicated to improving the program. The SER also mentions that the external evaluation and the recommendations received from foreign experts also contributed every time to the

improvement of the program. The ET recommends that the evaluation results should include analysis of the collected data about all aspects of the program – such as: student workload, academic success and employment of graduates.

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.

Since the programme assessment procedure is linked to the program reaccreditation by KAA, overall reports are prepared every three/five years. As far as the SER lets to be understood these reports also serve as the SER for the KAA therefore they do reflect upon strengths and weaknesses of the programme.

Standard 2.9. The quality assurance arrangements for the program are themselves regularly evaluated and improved.

The SER does not mention this, therefore the ET recommends that the faculty/university management make sure that all QA procedures, instruments and arrangements are periodically reviewed and improved. These revisions should ensure that the QA system is adapted to the new needs/realities of the study programs. For example, given the current COVID-19 pandemic, the surveys regarding the teaching-learning process should include relevant questions regarding the online teaching process.

Compliance level: Substantially compliant

ET recommendations:

- 1. Academic staff should self-evaluate their activity and be involved in knowledgesharing activities with their colleagues for constant improvement of the program.
- 2. Include in the surveys for students and academic staff questions regarding the infrastructure and educational resources in order to also monitor and evaluate the quality of these aspects of the study program.
- 3. Develop internal quality standards relevant to the specifics of this faculty/program.
- 4. Publish annual reports regarding the quality of the program along with a plan to improve it.
- 5. Review all QA policies, procedures and instruments periodically to see whether improvements should be made so that they better serve the purpose of constantly improving the study program.

2.3. Academic staff

The academic staff consists of 14 people, all of which are employed full time and hold doctorates (Dr. sc). These are 4 full professors, 5 associate professors, 4 assistant professors and one assistant. All members of the staff have professional experience in foreign countries, mostly in countries of the European Union. Contracts of full professors are permanent, other contracts have limited terms of 4 or 3 years.

Academic staff is offered training opportunities through the "Centre for Teaching Excellence" and, if available, through EU-funded Erasmus+ activities. There is however, according to the SER, still room for improvement, both in teaching skills and concerning participation in training events. According to discussions with students and graduates during the site visit, they are however very satisfied with the quality of teaching. Teachers are available for consultations with individual students.

The staff is active in cooperation and exchange with foreign institutions. They publish substantial numbers of scientific papers and participate actively in conferences.

It would be beneficial, to have one or two professors from abroad in the department, but this among others a financial question. Possibly a grant or sponsorship could be found.

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.

A staff list in tabular form is available. All staff is full time. The workload is not explicitly stated, but by usual standards the number of academic staff should be sufficient to implement the fairly small study program with a small number of enrolled students. The situation is however complicated by the fact, that several, especially more senior, professors are also engaged in other programs of the department. The teaching load of the staff should be assessed based on all programs a person contributes to. According to the SER Candidates for employment are provides with full position descriptions and conditions of employment.

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.

The SER states, that this standard is met. The fact, that all members of academic staff hold PhD degrees and present substantial lists of scientific publications supports the statement in the SER fully.

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.

According to the SER and discussions during the virtual site visit, this rule is met fully, though as mentioned above there is some concern regarding the fact that academic staff is involved in several study programs (each coming with teaching hours, consultation hours, responsibilities to coordinate final thesis and expectations regarding the research activity).

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.

All members of the academic staff are full time employed and hold PhDs.

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.

The program has a total of 96 ECTS points (72 ECTS mandatory courses, 6 ECTS in the 4th Semester, 18 ECTS from 3 out of the 6 elective course) plus 24 points for the master thesis. With the academic staff count mentioned above, the criterion is easily met.

Standard 3.6. Opportunities are provided for additional professional development of teaching staff, with special assistance given to any who are facing difficulties.

Academic staff is offered training opportunities through the "Centre for Teaching Excellence" and, if available, through EU-funded Erasmus+ activities.

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.

All full-time members of the academic staff are obliged to display consultation schedules for students at their offices and they are available for consultation with students. They participate in conferences, but it is not clear, to which degree they are engaged in community services such as refereeing of papers and project proposals.

Standard 3.8. Academic staff evaluation is conducted regularly at least through selfevaluation, students, peer and superiors' evaluations, and occur on a formal basis at least once each year. The results of the evaluation are made publicly available.

Academic staff is evaluated by the students for each lecture and results are communicated to the management. Other elements of staff evaluation seem to be absent. Results of the student evaluation are not made public. The latter is in line with European data protection standards (GDPR).

Standard 3.9. Strategies for quality enhancement include improving the teaching strategies and quality of learning materials.

The SER states: '*The strategies made by the institution are always focused on raising the quality of the program. This is thought to be achieved through the use of contemporary methods in teaching and improving the conditions, especially of those in laboratories.*' The staff definitely aims at improved teaching, the quality of learning materials is however a budgetary question, especially in case of laboratory equipment and access to international literature.

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.

There are no professors presently exceeding the age limit, although two are approaching the age limit. According to supplemental material supplied, the replacement of a retiring professor will be initiated 6 months before retirement.

Compliance level: Substantially compliant

ET recommendations:

- 1. Implement regular evaluation of the academic staff as foreseen in the standard 3.8.
- 2. Try to boost engagement in the scientific community, e.g. refereeing of papers and projects.
- 3. Try to hire a foreign professor, teaching a course in English.
- *4.* Support teachers to share teaching experiences and help each-other improve the quality of the teaching-learning process.
- 5. Consider rewarding the teachers with very good evaluation results.

2.4. Educational process content

The educational content of this program is clearly in line with European standards. This is also confirmed by the employers interviewed during the site visit. One said: "They are good in science, well trained and eager to work, but lack some soft skills". The other: "The students are able to work independently with mild supervision + they are able to perform complex jobs". The demand for soft skills has also been voiced in other universities, but exact nature of the soft skills asked for is not easy to determine. Aspects like strategic thinking or project management and writing of reports is mentioned. The program contains a mandatory course "research methodology", which covers some of these aspects. Cross-disciplinary subjects are covered in the bachelor program.

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.

The SER states: 'This program provides a good basis in the field of modern chemistry. The program offers to students knowledge and skills, develops approaches to address various issues related to chemistry. In addition, the program prepares students for communication skills and builds their future career in scientific research in chemical industry. This program also enables the promotion of chemical engineering and applied chemistry and permits the establishment of the link between science, technology, industry and economy with the aim to reach the sustainable development. Students that finish this program will have the skills to cope with problems within their domain.'

There are qualification objectives stated, but is not clear, how the soft skills mentioned in the second part of the paragraph are actually covered in the program. Possibly, the career center of UP contributes these skills. For lack of relevant material this cannot be evaluated.

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.

The program complies with these frameworks, according to the SER.

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 be listed at least 7 learning outcomes for the study program under evaluation.

The program is actually partially modeled after a program in Zagreb and is compatible with programs in the EHEA. The sequence of disciplines could possibly be reworked to optimize the logical flow. There are 9 learning outcomes stated in the SER. However, there is a question on the optimal sequence of courses. Moving more fundamental courses like kinetics to the first or second semester could be considered.

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.

Syllabuses meeting the above requirements are attached as separate documents accompanying the SER.

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.

The language of instruction is Albanian. Nevertheless, the Bachelor program offers an elective course in professional English. Students we met were quite proficient in English.

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.

Discussions with students and graduates during the virtual site visit very much support the existence of this partnership. This is however also facilitated by the very small enrollment into this program.

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.

Teaching strategies are similar to those uses in other European universities and appropriate for the subject. The small number of students makes it easy to meet the needs of different students.

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.

Assessment mechanisms are specified in syllabuses. The assessment is conducted fairly and objectively and no hint to the contrary has been mentioned in discussions with students. However, there is no institutional procedure to monitor or evaluate this.

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.

The SER states: 'Mechanisms used to verify student achievement standards are appropriate and reliable and are described in course syllabi.' However, the faculty needs to develop a mechanism to check that standards required for different grades is consistent over time and comparable among courses within the program and to other programs at the Department of Chemistry. We expect this to be the case, because a substantial part of the staff is also involved in other programs at the Department of Chemistry. Benchmarking in a formal manner against courses at foreign universities would be much more difficult.

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.

The issue is mentioned in the statute of the UP, Article 47 as duty of the senate of the university: *Policies and procedures for assessment and delivery of examinations for ascertainment of student academic performance*'. The SER states: *The regulations for studies also provide actions to be taken for situations where students' achievements are insufficient.* Even if this not exactly to the point of the standard, there has been no mention of the issue in interviews with students and alumni.

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.

The SER states: 'All the courses have practical stages, because Chemistry is experimental science and practical work is carried out in laboratories. Each course specifies the expected results during that laboratory work. Each student is valued for the engagement and the skills gained during the experimental work, and in the end this is reflected in the final grade. the syllabuses provided specify the labwork in detail.' Inspecting the syllabuses provided supports this statement. For some lectures labwork is replaced by calculation exercises.

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.

Even if practical work outside the university is not a mandatory part of this program, there are 6 cooperating local companies mentioned in the reply to our questions and, according to the students and alumni interviewed, internships with companies seem to be quite common.

Compliance level: Substantially compliant

ET recommendations:

- Promote the program actively in order to augment enrolment. A point seen elsewhere is the belief of employers, that fist degrees are good enough to achieve, what is needed. Considering the future technological development of the country, advanced degrees (MSc, PhD) are an absolute requirement.
- 2. Improve student laboratories with better equipment
- 3. Improve the formal framework describing the program
- 4. Develop the missing procedures e.g. to check if the standards of work between disciplines are coherent.
- 5. Consider the logical and optimal flow of disciplines within the program.

2.5. Students

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.

The faculty follows all the procedures of the university and there is no reason to believe that they will do differently with the admission process. The university has an admission procedure adopted at institutional level and the procedure includes clear criteria for admission, thus making it easy for it to be constantly and fairly applied for all interested potential students.

Standard 5.2. All students enrolled in the study program posses a high school graduation diploma or other equivalent document of study, according to MEST requirements.

The evaluated program is a MSc level program dedicated to all BSc students, thus all the enrolled students automatically have a high school diploma and a BSc diploma.

Standard 5.3. The study groups are dimensioned so as to ensure an effective and interactive teaching and learning process.

The faculty management plans to enrol a very small number of students (15). Thus they will all learn in the same study group. 15 students/group is a sufficiently small number to ensure close relationship between teacher and students. But this is not sufficient to guarantee an effective and interactive teaching and learning process. Special training for the academic staff should be considered in order for them to develop competencies and teaching strategies specific for this objective.

Standard 5.4. Feedback to students on their performance and results of assessments is given promptly and accompanied by mechanisms for assistance if needed.

Feedback to students is forseen in the form of results of assessments. The faculty should consider motivating the academic staff to offer also informal formative feedback to students during the semester so that the student is aware of his/her progress towards meeting the learning outcomes. This feedback can help students to plan for eventual recovery when needed.

Standard 5.5. The results obtained by the students throughout the study cycles are certified by the academic record. And 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

Both the SER and the discussion with the students confirmed that all records are registered within the SEMS platform. However, as indicated in section 2 of this report, it is not clear

whether student performance data are monitored and evaluated as part of the QA system.

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.

The SER did not mention such a flexible treatment, but rather the opportunity for students to ask for an extra exam. This should be corrected especially as during the COVID-19 pandemic students can find themselves in difficult situations – being patients or having a patient in the family to attend to, which might affect their attendance.

Standard 5.8. Effective procedures are being used to ensure that work submitted by students is original.

At this point checking for originality in the students papers is the responsibility of the supervisors. However, the ET recommends that these efforts should be complemented by

institutional endeavours to prevent and sanction plagiarism. These initiatives could include, but should not limit to an anti-plagiarism software.

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.

Though the ET could not check whether they are published on the university website due to technical problems with the webpage. The students confirmed they know their rights and obligations. They also mentioned they know where to look for rules and regulations when in doubt.

Standard 5.10. The students' transfer between higher education institutions, faculties and study programs is clearly regulated in formal internal documents.

The SER mentions `*The students' transfer between higher education institutions, faculties and study programs is clearly regulated by the Regulation for the mobility of UP academic staff and students (no. 2/111, date: 14.07.2017), which is published in UPHP website*`.

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.

Each member of the academic staff sets a schedule for consultation hours. Students were satisfied with their relationship with their teachers.

Compliance level: Substantially compliant

ET recommendations:

- 1. Develop a procedure to ensure flexible treatment for students who are missing lectures or exams due to personal issues (e.g. medical problems or a death in the family).
- 2. Develop campaigns for informing students about academic ethics and plagiarism. Punish discovered plagiarism situations both among students, and academic staff.
- 3. Develop an appeal procedure.

There is substantial research activity, which also results in a respectable number of publications in reputable journals and contributions to conferences. A lot of this is done in cooperation with institutions abroad. A quick review of publication titles shows a focus on the area of environmental pollution, water resources, water pollution and cleaning and related analytical techniques. Another, partially connected area of research is electrochemistry, both in the area of chemical analytics as well as corrosion protection and water purification (electro-Fenton process).

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 human resources are allocated for achieving the proposed research objectives.

The SER states: 'As part of this Master's program in Physical Chemistry and Inorganic Chemistry, alongside the teaching process, scientific research is also conducted, where each student in the master thesis participates in scientific conferences together with their mentor and present their results in different conferences at local, regional and international level.' The number of publications and contributions to conferences clearly point to very substantial research activity, where students are participating during their master thesis. There is however no development plan.

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.

It is not clear, whether expectations are really specified in writing, but the staff is active in research and publications, and according to the SER: *'The research activity is one of the main pillars of the performance assessment that is taken into account for the promotion of the academic staff.'*

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.

As stated in the SER, the chemistry department selects journals listed in the "Web of Science" and "Scopus". Publications listed in the SER and in the "reply to requests" are in general published in highly reputable international journals. According to the SER, for promotions of the academic staff, primarily publications in these high-quality journals are considered.

Standard 6.4. The academic staff has a proven track record of research results on the same topics as their teaching activity.

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Thematically research and teaching activities overlap partially, e.g. in the area of environmental chemistry or materials science. However, even much larger and better equipped departments need to focus their research on a limited number of specializations. Teaching needs to cover the whole field of the study program. Consequently, there will be a substantial number of topics taught by academics researching in a different field. All teachers research however in chemistry.

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.

The SER states: 'Academic staff publishes in scientific journals that are close to their field of research and are part of main scientific platforms. They present their research work continuously in different scientific meetings: congresses, conferences, symposia and workshops that are organized abroad in the region or elsewhere.' This statement is fully supported by the list of papers and lectures provided.

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.

As stated above, results are published in reputable international journals. There seems to be cooperation with companies. Setting up a technology transfer institution and/or an incubator for startup companies close to the university would be a worthwhile undertaking, promoting economic development. The faculty/university management could consider offering support for development of an **Innovation Centre of Kosovo** that could fulfill this role of start-up hub/incubator.

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.

There is a substantial number of publications in in Web of Science journals, but also some in other journals. On average, the requirement is definitely met, but the distribution between academic staff members is quite uneven.

Standard 6.8. Academic and research staff publish under the name of the institution in Kosovo they are affiliated to as full time staff.

Several publications have been checked and affiliation to the UP has in all cases been properly stated.

Standard 6.9. 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.

This is not clear. The faculty should encourage teachers to do so.

Standard 6.10. Policies are established for ownership of intellectual property and clear procedures set out for commercialization of ideas developed by staff and students.

This is not clear, but such policies need to be established at university level.

Standard 6.11. Students are engaged in research projects and other activities.

Students are involved in research-related activities in the framework of their master thesis, but could also be involved in research projects of their teachers.

Compliance level: Substantially compliant

ET recommendations:

- 1. Establish a Research Development plan
- 2. Fund investments needed to implement the development plan. They could also include funding/grants opportunities for students' research projects.
- 3. Move future publications to Web of Science journals

2.7. Infrastructure and resources

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.

As mentioned above and in the SER, the program benefits of sufficient academic staff for the number of students that the program is supposed to enrol. However, it is important to focus future efforts towards attracting more funds (from more diverse sources) in order to invest in laboratory equipment and learning materials. For now the spaces that the faculty is providing for this Masters' program seem to be sufficient, but in time, if the Faculty develops new programs or enrols more students, the pressure on the spaces will increase and the faculty management should consider investments in new spaces.

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.

The university works with a centralized budget that does not allow for a split of the incomes and expenditures per program. The ET feels that a decentralization would help the faculty management assess the sustainability and economic efficiency of this program. This is important especially if there is a small number of students enrolled. However, the SER mentioned there is an annual financial plan that the faculty makes for each program and which is the starting point for compiling the university budget.

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;

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.

According to the SER: `*The Department of Chemistry as part of the FMN has its own building and is not rented any other object. Laboratory equipment is owned by the University and they are not leased*`.

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.

Given that the program will enrol only 15 students, this requirement is easily met. There is also an IT laboratory for the students.

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;

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

The SER did not include sufficient details about the capacity of the library, but given that the program will enrol only 15 students, this requirement is easily met. However, things might get complicated if one could see the bigger picture of the total of students in the faculty vs.the capacity of the library. These aspects should be monitored as part of the internal QA system and the faculty management should constantly looked for opportunities to increase the capacity in order to answer to the needs of all its students.

Standard 7.6. The infrastructure and facilities dedicated to the implementation of the program is adapted to students with special needs.

The SER mentions: `In most cases, the infrastructure and the facility of the Department are not fully adapted to the students with special needs`. A student in a wheel chair cannot access most facilities.

Compliance level: Partially compliant

ET recommendations:

1. Ensure access to online journals and article databasis both at the library and at home (e.g. based on the institutional email address or a VPN system)

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- 2. Constantly invest in developing the capacity of the library (e.g. buy more computers, more books etc.)
- 3. Ask for a decentralised budget within the faculty.
- 4. Invest in laboratory equipments and learning materials.

3. OVERALL EVALUATION AND RECOMMENDATION OF THE ET

The program's compliance levels were evaluated as follows:

| 1. Mission, objectives and administration | Substantially compliant |
|---|-------------------------|
| 2. Quality Assurance | Substantially compliant |
| 3. Academic Staff | Substantially compliant |
| 4. Educational process content | Substantially compliant |
| 5. Students | Substantially compliant |
| 6. research | Substantially compliant |
| 7. Infrastructure and resources | Partially compliant |

However, the ET would like to make a general comment about the SER: it was very generally written and lacked sufficient details about the way the faculty implements each of the enumerated standards. The ET recommends the faculty that future SERs should include relevant examples for each standard proving how the standard is applied. When useful a specific annex can be added to the SER in order to highlight something written in the report.

General suggestions – the ET recommends to the Faculty management to focus on five issues, for the next three years:

- 1. **Quality Assurance** though the process is coordinated at university level and only some of the instruments are implemented at faculty, the entire academic community should cooperate in building a **culture of quality assurance**;
- 2. **Evaluating the staff every two years**, in accordance with the elements of the contract, as suggested in the standard (implement all elements of the evaluation);
- 3. Promote the program to increase enrolment (to fill all the available places);
- 4. **Create a Development Plan** satisfying international standards, including the fields of teaching, research and investments as well as allocated human and financial resources;
- 5. Consider any opportunity of developing a study program in English, to attract foreign students and academic staff and increase regional cooperation;

In conclusion, the Expert Team considers that the study program <u>Physical and Inorganic</u> <u>Chemistry MSc</u> offered by the <u>University of Prishtina `Hasan Prishtina`</u> is <u>Substantially</u> <u>compliant</u> with the standards included in the KAA Accreditation manual and, therefore, recommends <u>to accredit</u> the study program for a duration of <u>3 years</u> with a number of <u>15</u> <u>students</u> to be enrolled in the program.

4. APPENDICES (*if available*) – *not the case*

Expert Team

Chair

(Signature)

Prof. Dr. Herbert Störi

April 26th. 2021

(Date)

(Print Name)

Member

Delia GologanApril 26th. 2021(Signature)(Print Name)(Date)

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