

Decision of the Accreditation Commission of AQAS

on the study programme:

“Chemistry” (B.Sc.)

offered by the Moldova State University

Based on the report of the expert panel and the discussions of the Accreditation Commission in its 69th meeting on 4th and 5th of December 2017, the Accreditation Commission decides:

1. The study programme **“Chemistry” (Bachelor of Science)** offered by **Moldova State University (Moldova)** is accredited according to the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).

The accreditation is **conditional**.

2. The study programme essentially complies with the requirements defined by the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) and the European Qualifications Framework (EQF) in their current version. The required adjustment can be processed within a time period of nine months.
3. The condition has to be fulfilled. The fulfilment of the condition has to be documented and reported to AQAS no later than **31st of August 2018**.
4. The accreditation is granted for the period of **five years** and is valid until **30th of September 2023**.

Condition:

1. The revised qualification profile must be described explicitly in the official documents.

The following **recommendations** are given for further improvement of the programme:

1. The faculty should strengthen curricular elements covering basic knowledge and skills in physics.
2. The description of the learning outcomes should be improved so that they become more competence-oriented.
3. In the curriculum, courses on security standards should be introduced.
4. The university should engage students in the regular and day-to-day improvement of the study programmes.

With regard to the reasons for this decision the Accreditation Commission refers to the attached assessment report.

Experts' Report
on the study programme:
“Chemistry” (B.Sc.)
offered by the Moldova State University

AQAS

Agentur für Qualitätssicherung durch
Akkreditierung von
Studiengängen

Visit to the University: 6th/7th of October 2015 and assessment in written form

Panel of Experts:

Prof. Dr. Robert Hänsch	University of Braunschweig (Germany), Institute for Plant-Biology
Jorge Moreno	Student at the University Mainz (Germany) (student representative)
Prof. Dr. Aurel Pui	University Iasi (Rumania), Dean of the Faculty for Chemistry
Sorin Vucea	SORGEN SYSTEMS SRL, Bucharest (Romania) (representative from the professional field)
Prof. Dr. Thomas Waitz	University Göttingen (Germany), Institute for Inorganic Chemistry
Coordinators:	
Dr. Katarina Löbel & Ronny Heintze	AQAS e. V., Cologne, Germany

Introduction

This report results from the external review of the Bachelor programme in Chemistry offered by the Moldova State University in Chisinau, Moldova. The review is based on the criteria that were developed jointly as part of a TEMPUS project under participation of the Ministry of Education of the Republic of Moldova. They are based on the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) that were developed by the European Association for Quality Assurance in Higher Education (ENQA) and presented to the Bologna Follow-Up group in 2005.

The University produced a Self Evaluation Report (SER). The accreditation procedure was officially initialised by a decision of the AQAS Accreditation Commission on 18th/19th of May 2015. The Accreditation Commission nominated the before mentioned expert panel and the University did not raise any concerns against the composition of the panel.

After a review of the Self Evaluation Report, on the 6th/7th of October 2015 a site visit to the University took place. On site, the experts interviewed different stakeholders and consulted additional documentation and student work. The visit concluded with the presentation of the preliminary findings by the group of experts to the University representatives.

Based on the report of the expert panel and the discussion of the Accreditation Commission in its 61st meeting on 30th of November/1st of December 2015, as well as in its 62nd meeting on 22nd/23rd of February 2016, the Accreditation Commission decided to postpone the decision since the study programme did not yet fulfil all Standards for Quality Assurance in the European Higher Education Area (ESG) and the European Qualifications Framework (EQF) in their current version. However, it was likely that the shortcomings could be remedied within 18 months. The findings were:

1. The faculty must take a decision on the main focus of the programme and possible directions which must be expressed in a clear way in the documents, e.g. in the Diploma Supplement and/or the examination regulations. The specific goals and the curricular structure of the overall programme and the directions must be described in the documentation in a comprehensible way.
2. The programme's length must correspond to the workload of the programme, especially in the pedagogical direction of 220 CP. In addition, it must be described in the official documents that for the teacher education direction, a higher amount of credit points must be studied.
3. The experts recommend amplifying the teacher education direction of the study programme to four years of 240 CP to avoid the workload overload.
4. The faculty should strengthen its efforts towards internationalisation.
5. The faculty should assemble the courses with relation to physical chemistry into a single module and the topics of quantum mechanics and computational chemistry should be added to the curriculum on physical chemistry.
6. The faculty must assure that the students of the bachelor programme in the research direction have access to the necessary devices in order to develop their methodical and technical skills especially in modern methods. Alternatively, more practical skills must be developed e.g. by extending the internships.
7. In the official documents, the status of the internships must be described clearly.
8. In the direction on teacher education, the didactic components in the curriculum must be strengthened and didactic research must be carried out at the faculty.

9. The faculty should increase the number of courses in English language; especially courses in scientific and technical English are recommendable.
10. The module descriptions must be revised so that the intended learning outcomes and the level of complexity is described transparently.
11. The module descriptions must be publicly available.
12. The faculty must develop a concept on how to establish a system for data collection on the progression of the students, on their workload as well as on the success of the graduates and how the data and the evaluation results are used for the development of the programme.
13. The faculty should establish a system for quality assurance which is applied to all courses, in which students are included on a regular basis and in which students also know about the results of quality assurance.
14. The faculty should improve the safety issues for the laboratory work.

In July 2017, Moldova State University handed in the documentation of the revised study programme. The documentation was reviewed by the expert panel.

1. General Information

MSU was founded in October 1946 as classic institution of higher education. It was the first higher education institution accredited initially by the Government of the Republic of Moldova in 2001 and then in 2006. In May 2005, MSU joined the Bologna Process and Lisbon Convention. Since July 2006, it has been a member of the Academy of Sciences of Moldova. MSU is a public state institution of higher education functioning according to the rules of university autonomy that refers to the way it is governed, structured and functioning, as well as to the teaching activity and scientific research, administered and financed, benefiting at the same time from the non-profit status and financial autonomy.

MSU is a university centre with educational, research and cultural purposes. MSU has 13 academic Faculties and one Faculty of Fine Arts, divided in academic departments, academic chairs, administrative departments, laboratories, and research centres.

MSU has 1,134 teaching personnel working in 34 academic chairs, 15 departments, and 6 centres of research as well as 24 laboratories. There are also 418 auxiliary didactic personnel. At the moment of application, MSU has about 14,670 students.

2. Profile / Outcomes of the Programme

The university has redefined the main profile of the study programme and describes a research orientation for the programme. At the completion of the programme, the graduates should have obtained different subject-related, general and specific competences:

General competences:

- analysis, synthesis and announcement of scientific information from chemistry domain,
- efficient usage of informational sources and communication and professional formation resources,
- application of theoretical knowledge of composition, structure and properties of chemical components in resolving practical tasks,
- problems identification, their forming and resolving,

- generation of new ideas and creative solutions in resolving problematic situations,
- application of strategies of efficient and responsible work, punctuality, seriousness and personal responsibility.

Specific competences:

- adequate usage of theories, principles, essential methods connected with chemistry domain,
- synthesis, evaluation and interpretation of data from the domain of analytical, organic and physical chemistry,
- evidence of correlation composition – structure – chemical combinations properties,
- monitoring of chemical properties and phenomena through observation and measurement,
- collection, evaluation, interpretation and synthesis of information and chemical data to resolve new theoretical and practical problems,
- selection of the most adequate methods to resolve new theoretical and practical problems,
- guiding laboratory processes and equipment usage in the activity of synthesis and study,
- usage of adequate methods, instruments, techniques, and technologies for measurement and monitoring activities,
- interpretation of data received from laboratory measurements and observations and their classification,
- verbal and written presentation of scientific material and justified argumentation of personal opinion,
- announcement of scientific information to specialists and public at large.

Experts' Evaluation

The study programme on “Chemistry” embraces a range of domains and focusses on different fields of employment. The unique characteristic of the study programme is the focus on the training of researchers in Chemistry. Correspondingly, different qualification objectives of the programme exist to address this focus. The experts acknowledge the clearer profile of the study programme after the revision focussing on research-oriented competences. This qualification profile helps graduates to find a job in research-based environments. Nevertheless, the new qualification profile has not yet been described that clearly in the official documents. The university must adapt these documents according to the new profile (**Finding 1**).

The admission requirements, transition possibilities and selection processes are defined and adequate. The admittance procedures are transparent.

The university defines the internationalisation of research as a strategy. A strong argument to strengthen efforts towards internationalisation process is the award of the Central European Exchange Programme for University Studies (CEEPUS). The consortium is formed of seven countries, including Moldova, and carries out research projects together. It has developed an action plan for the next years. Also the academic mobility has been improved in the last years e.g. through four Erasmus Mundus Projects. The programme's structure mainly allows for international mobility of students. The programme uses defined instruments/structure to promote international mobility (e.g. ECTS, diploma supplements, transcripts of records, learning agreements, etc.). In addition, a number of foreign specialists have given public lectures at the Chemistry Department.

3. Curriculum

The duration of the Bachelor's programme "Chemistry" has been changed to three years, divided into six semesters, 180 CP are awarded.

The curriculum was restructured along the disciplines of Chemistry (inorganic, organic, analytical and physical chemistry). The Physical Chemistry module was assembled into a single module as follows: Physical Chemistry I (Chemical Thermodynamics and Thermodynamic Laws), Physical Chemistry II (Basics of Chemical Kinetics and Catalysis), Physical Chemistry III (Physical chemistry of dispersed systems, Colloidal systems, Colloidal chemistry - numerical applications), and Physical Chemistry IV (Basics of Electrochemistry, Electrochemistry and Corrosion, Applied Electrochemistry Aspects). The Module Computational Chemistry (2nd year, 4th semester, 4 credits) was also included in the study plan.

The curriculum contains according to the university's documents several components.

- subject-related competencies: from inorganic, organic, analytical and physical chemistry such as the Fundamentals of Inorganic Chemistry, the Fundamentals of Analytical Chemistry, Chemistry of Nonmetals, Chemistry of Metals, Chemistry of Coordination Compounds, Chemistry of Hydrocarbons and their Chlorine and Sulfur Derivatives,
- general competencies: Foreign languages, and Information technologies,
- socio-humanistic competencies: the History of European Culture, Philosophy, and European Political Structures,
- professional competencies: methods such as the Qualitative Analysis in Analytical Chemistry, Stereochemistry of Organic Compounds, Principles of Thermodynamics, the Fundamentals of Chemical Kinetics, Ecological Chemistry, and Chemical Technologies.

The curriculum contains four internships to train professional and methodical competencies. Cooperation agreements with different specialised centres have been signed for example with the Hydrobiology Laboratory from the Institute of Zoology of the Academy of Sciences of Moldova and the Institute of Chemistry from the Academy of Sciences of Moldova. According to the university, these are equipped with modern equipment not available at MSU.

The university describes that written forms of assessment (the initial testing, the two mandatory tests during the semester, the exam, the assessment of the individual work) and oral forms of assessment (the initial assessment, the formative assessment at seminars, the individual work and the exam) are applied in order to proof whether the learning outcomes are reached by the students.

The modules and courses are described in a manual. According to the SER, this manual can be downloaded on the MSU official web page and on an internal electronic platform.

Experts' Evaluation

The curriculum is well-suited to achieve the intended qualification objectives. The combination of the modules and courses allows the students to obtain diverse subject-specific, academic and professional competences in the field of Chemistry. The study programme also contributes to the personal development of the students. Specifically the socio-humanistic courses enable them to reflect social, scientific and ethical aspects in their decisions. From the point of view of the experts, the amount of the socio-humanistic courses in the curriculum is relatively high. The faculty explained that this amount is a condition by the Ministry. The experts can affirm that the academic level of the content corresponds to the requirements of the bachelor level of the European and/or National Qualifications Framework.

In total, the experts highly appreciate the work done by the faculty to revise the programme. Nevertheless, some minor modifications should be made to further improve the programme. As a first suggestion, the faculty might consider introducing a physics internship (**Finding 2**). From a didactical point of view, students should also have basic knowledge and skills in physics.

All courses and modules are described. These descriptions include most of the relevant information and they are freely accessible on the webpage of the university. However, the experts suggest revising particularly the description of the learning outcomes (**Finding 3**). So far, the descriptions give a good insight into the contents of the courses and modules but the output is less clear. The faculty should stronger emphasize the intended learning outcomes of the students after having successfully finished each course or module.

In the study programme “Chemistry”, a credit point system to describe the student workload is used. According to the explanations of the faculty, the teachers take care about the workload and explain the programme, the requirements and the methods of learning.

The teaching-, learning-, and assessment methods used in the study programme “Chemistry” support the exchange between theory and practical application, for example in laboratory work. The university describes that, where appropriate, students are also involved in research activities which the experts consider as beneficial to achieve the overall qualification objectives.

4. Student Support

Study Organisation

The faculty describes that the teaching activities for the study programme “Chemistry” are coordinated by the Department of Chemistry, through the revision of curriculum at the departmental meetings, at the Faculty Board, and by the assessment performed by the Quality Assessment Committee. The Curriculum compiled by the academic staff should be discussed during the departmental and at the Faculty Board meetings.

Information and Support

The university, the faculty and the department provide according to the SER access to information in order to help students in their decisions related to their academic and personal development. Guidance and counselling information should be provided both on-line on the University or Faculty web site, an electronic platform, via e-mail, and on an individual basis through private discussions and counselling, weekly teaching consultations with students, weekly (or upon request) meetings and consultations with the tutor of the group, information and support provided by the Dean and by the head of the Department, and career counselling provided by the Career Guidance Centre.

Following the explanations in the SER, the department offers information on-line. The following information should be given: support materials, regulations and instructions regarding the examination periods and the exam requirements, programme s and instructions regarding scientific students conferences, methodical guidelines for writing graduation papers, curriculum of the discipline that includes the learning outcomes and suggestions for student's individual work, as well as the assessment criteria.

The mobility of students and teachers is according to the university supported by the Department of International Relations of the MSU and by the responsible for international academic exchange within the Faculty.

Internships are according to the SER organised within the study programme “Chemistry” in accordance with the syllabus. Specialty internships are held in scientific laboratories.

Admission and enrolment

Any Moldovan citizen and foreign national, who holds a baccalaureate and specialised studies diploma (college), is admitted for the enrolment in the higher education system. Candidates are admitted for the selection on the basis of their personal dossiers submitted to the specialized admission commissions. MSU describes that the selection and registration of candidates is carried out by a computer programme that grades the candidates in a decreasing order according to the average marks received at the contest.

Assessment

At the faculty level, assessments should be supervised by the Quality Assurance Commission and the Dean's Office (Dean and Vice-Dean). The Quality Assurance Commission supervises the quality of the assessment (application of correct assessment methodology), while the Dean's offices has the aim of ensuring the assessment process.

According tot the SER, the Assessment Regulations are available on the website of the Faculty and can be consulted at the Dean's Office. Assessment criteria and procedures from the course curriculum are explained to the students by the teaching staff at the beginning of the course.

Credits

The workload is divided into direct contact hours and individual work. The university describes that based on the students' suggestions it is possible to adjust the distribution of the study hours.

The faculty explains that the recognition and equivalence of student academic results and qualifications acquainted at other institutions than the Faculty of Chemistry and Chemical Technology is made based on the current legislation and regulations - the European Credit Transfer System (ECTS) serving as reference framework. ECTS credit transfer, recognition, equivalence and documentation of performance achieved by the student during the period of mobility is performed through the transcript of records reflecting the student's quantitative and qualitative activities.

Experts' Evaluation

The institution provides information on its programme. The students confirmed that they feel well informed and supported by the teachers. The students highlighted that they have access to information on an electronic platform and that they can always ask the lecturers.

Student advisory service is available to students. These services are offered continuously and information on these services is made available to students in an adequate way. This was also confirmed by the students.

The study programme includes practical elements. The students feel well supported finding practical placements.

The assessment regulations are defined and published and they are available to the students. The assessment regulations include regulations to compensate for disadvantages, illness, absence or other mitigating circumstances. There are also regulations for the recognition of credits gained at other higher education institutions and outside of the higher education institution. These regulations are of formal status.

The faculty uses different methods of assessment in order to monitor the students' progress. It is ensured that every student has taken a variety of examination types over the course of the studies such as lab work, written and oral examinations. During one semester, each course involves two compulsory tests and a final exam. The semester mark in composed of the semester mark (60 %, two compulsory test and individual work) and the exam mark (40 %) that are combined together to the final mark. The individual work is weekly work put in a portfolio that is checked by

the tutor. The distribution of grades is documented.

The assessments reflect the knowledge, skills and competences taught in the programme. From the experts' perspective, the assessment of the knowledge and learning outcomes is done in a fair way and adequately balanced. Students are happy with the assessment system and feel that it represents their work and learning progress during each module. The experts have also seen this assessment system as a positive practice. This allows students to be evaluated on their actual progress and also avoids students be assessed based only on one test which in most cases does not reflect the learning process and competence assimilation of each student.

Unluckily, the assessment of the students for each module is done by only one person. This could be both positively and negatively evaluated. Since only one person evaluates each student, it is easier that the work progress and learning evolution of each student can be better and fairly evaluated. On the other hand, it could happen that the students' assessment is being done subjectively.

The organisation of the exams is done prior to each semester and the responsibilities and structures with regard to the organisation are clearly defined. The different appointments for the exams are published on the electronic platform and the students have access to these data since the very beginning of each module. The possibility to change the dates of exams exists in case the student group needs it and demands it. The results of the exams are also published on the electronic platform, to which each student has personal access.

The electronic platforms and other ICT means are used within teaching-learning-assessment processes. The students confirmed that the lecturers use an electronic platform and that they are confronted on how to use ICT means for example to hold a presentation.

The experts appreciate the quotas for handicapped and challenged students and they acknowledge the gender balance in favour of women.

Summarising, the experts affirm that the study programme "Chemistry" is feasible. This judgment is mainly made on the basis of the students' feedback during the site visit.

5. Employability

The faculty explains in the SER that the target of the study programme "Chemistry" is to prepare qualified specialists in the field of Chemistry. More specifically, the study programme in Chemistry is directed towards the following professional positions: chemist, chemistry teacher, scientific laboratory technician, scientific researcher, and chemistry advisor.

In order to ensure the acquisition of knowledge, skills and competencies necessary for getting the mentioned professions and improving the graduates' employability in the labour force, the university explains different measures: the programme coordinators consult the experts in the field, which are the employers of the labour market and the graduates of the programme. The recommendations of the employers, graduates, and students are analysed within the Faculty and the Department in order to modernise and adjust the programme.

Experts' Evaluation

The faculty has valid information about the requirements of the potential fields of employment of the graduates. From the perspective of the experts, the potential graduates have good chances to be employed by companies from the industrial area or public services: water distribution, wastewater treatment stations, laboratories etc.

The study programme "Chemistry" provides the students with a variety of competences which mainly focus on research. These are necessary to work in the mentioned fields. The experts spe-

cifically appreciate that the faculty has included subjects such as “Computational Chemistry”, has strengthened the training of methodical skills, and has furtherly developed the curriculum by introducing courses such as “Foreign Language Applied in Chemistry”. These courses, apart from training necessary skills for the national job market, also contribute to a more international skill profile of the graduates. In addition, the faculty handed in cooperation agreements with medical and pharmaceutical institutions for internships. These institutions can also be considered as field of work for graduates of chemistry.

From the point of view of the experts, all these measures contribute to the improvement of the study programme and, correspondingly, to the employability of the graduates.

6. Resources

The resources of the Faculty of Chemistry and Chemical Technology allow the annual admission of 40 people to the Bachelor’s programme “Chemistry”. The admission to the programme is done annually. According to the university, all academic and non-academic positions are filled in accordance with the national and institutional regulations.

The university applies several measures in order to motivate teachers for excellence in their professional activity: continuing professional development training, diverse awards and prizes, and supplements in addition to the basic salary for e.g. participation in international conferences or publication of teaching, methodical and scientific works. In addition, the Department explains that it holds methodological seminars for the teaching staff for improving the competences of student assessment.

The university describes in the SER the material resources for the programme such as study rooms equipped with projectors and interactive boards, an ICT lab equipped with 14 computers, a reading room with 30 computers, one Palace of Sports, a library with specialized books titles, and 25 laboratories in which the teaching process is performed. The university describes that some of the laboratories have been repaired and equipped with new furniture, that existing and new modern equipment was centralised for laboratory works. Additionally, students are supposed to have access to a Powder X-ray Diffractometer.

Experts’ Evaluation

All staff involved in the teaching of the programme are documented including their academic and other relevant qualification as well as research activities and quantitative involvement (teaching hours) in the programme. There are procedures to ensure lecturers are familiar with the requirements in the programme. The experts especially appreciate the involvement and devotion of the teaching staff.

It is ensured that the teaching capacity is available for the period of accreditation. If positions expire during the period of accreditation, the position is likely to be reappointed.

There are procedures to ensure appropriate didactic qualification and training especially of the young teaching staff. The faculty provides trainings to the young teachers e.g. on how to use electronic platforms and on how to teach in foreign languages. The faculty has strategies and mechanisms of performance promotion and staff motivation. This is mostly done via salary supplements for good evaluation results.

During the site visit, the experts had the opportunity to visit the facilities and premises at MSU. The experts can affirm that material resources such as finance, computer workplaces, laboratories etc. are available for carrying out the study programme. MSU has many different laboratories and the faculty showed that they have introduced security standards in the laboratories such as

labels on the reagent reservoirs according to GHS (Global Harmonised System) and a central list of chemicals with hazard and precautionary statements. The experts assess these changes as positive. Nevertheless, in the curriculum, no courses on security issues can be found. The experts recommend introducing courses to explicitly train students in this respect (**Finding 4**). This would also strengthen the development towards the European security standards.

The faculty cooperates with the Academy of Sciences which allows them, amongst others, to use their infrastructure and devices, e.g. a X-ray diffractometer. However, the experts could not find evidence that this cooperation is institutionalised. That is why the experts recommend the faculty to give the cooperation a binding status, e.g. through a formal cooperation agreement, and, this way, assure that the students are allowed to use the equipment to train their competencies (**Finding 5**).

There is access to literature, journals and information sources to enable the achievement of the intended qualification objectives. The faculty provides the students' access to information by internet network. The students validated that they also have access to electronic sources (books and journals) and that they have the access from the library but also from home.

7. Quality Assurance

Since 2005, MSU has according to the SER implemented a Quality Management System (QMS) based on a policy defining the organizational structure and procedures to ensure the management, the evaluation and the continuous improvement of the quality of the all activities. At MSU, there are various structures of QMS:

- At the level of the university: e.g. Senate, Bureau of the Senate and the Council of Quality, Quality Management, Assessment and Curricula Development Department (QMACDD). Their task is to offer methodological support and monitor the activity of QMS.
- At the level of Faculties: a) The Council of the Faculty that plans, implements and improves QMS at the level of the Faculty. b) The Quality Assurance Committees that monitors the process of quality assurance at the level of the Faculty.
- At the level of departments/Chairs: a) The chair/department has the responsibility toward the quality of processes that take place within its framework (education, research, organizational issues and external relations), b) The QMS works according to the principle of representation. The teaching personnel, students and employees should be involved in all of its activities.

The Quality management defines the design, monitoring and assessment, in which SMC is involved at all levels. Special emphasis is given to the quality assessment which is of two types, the continuing assessment and periodic assessment. These two types of assessment are part of the internal evaluation. The former is achieved through self-assessment and institutional assessment.

The main body in assuring the quality of the study programme "Chemistry" is according to the SER the Quality Assurance Committee of the Faculty of Chemistry and Chemical Technology. The concept of quality assurance in the teaching process at the Department level is a component part of the university concept of quality assurance implemented through procedures for assuring the quality of the programme of study. At the level of Department on an annual basis, the members of the teaching staff review the content of the study plan in order to improve the quality of the services provided by the department and increase the transparency of the information for public interest. The members of the Quality Assurance Commission, of the Dean's Office and of the Faculty Board also participate in the discussions.

The faculty describes that the Quality Assurance Commission provides methodological guidance and support in quality assurance to the Chemistry Department. The Quality Assurance Commis-

sion at the Department of Chemistry pays according to their explanations attention to the formative aspects (competences), as well as to the formal aspect (assessment of time limits for each discipline, measured in academic credits). The quality of the contents should be assessed at the department and faculty levels, by objective and transparent assessment procedures of the learning outcomes and by periodic assessment of the quality of the teaching process. In the SER, the faculty states that in order to perform quality monitoring, the following methods are used: peer and public classroom observations, review of the teaching materials, student questionnaires on the quality of the teaching process and the content of the programme of study, review of the topics and tests for regular examinations, as well as for final assessment.

The study programme "Chemistry" should be, as all study programmes at the department, periodically reviewed at the departmental meetings. The faculty describes in the SER the process as following: the Quality Assurance Committee submits recommendations for quality enhancement to the Faculty Board. The Faculty Board approves the necessary recommendations. Course review is undertaken at one of the departmental meetings. The Quality Assurance Commission performs curriculum evaluation throughout the academic year. The Quality Assurance Board and Quality Management Department perform curriculum evaluation at the beginning of each academic year. Observing the professional development of graduates is made by the Dean's Office of the Faculty of Chemistry and Chemical Technology at the level of the faculty and Career Guidance Centre of MSU.

In addition, the university describes that an electronic platform is used for data collection on the progression of the students, on their workload as well as on the success of the graduates and how the data and the evaluation results are used for the development of the programme.

Experts' Evaluation

The university has established a formal system for quality assurance. The faculty described during the site visit that they work with questionnaires and evaluations of modules. The results count for the lecturers in the internal competition for academic posts. The students' role in the quality assurance is to give feedback and to check the students' data base and academic registers. They are supposed to have full power of vote in the formal organisational structures of the university. They also get the evaluation reports from the Senate.

Acknowledging the formal rights of students in the system for quality assurance, the experts still wish to encourage the university to further include the students in the regular and day-to-day improvement of the study programmes (**Finding 6**).

8. Findings

1. The revised qualification profile must be described clearly in the official documents.
2. The faculty might consider introducing a physics internship.
3. The description of the learning outcomes should be revised so that they become more competence-oriented.
4. In the curriculum, courses on security standards should be introduced.
5. The cooperation between MSU and the Academy of Science with respect to the use of equipment and infrastructure should have a binding status, e.g. through a formal cooperation agreement.
6. The university should include students also in the regular and day-to-day improvement of the study programmes.