



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

VILNIAUS UNIVERSITETO
**PROGRAMOS *CHEMIJA* (valstybinis kodas – 621F10001,
ankstesnis – 62403P102)
VERTINIMO IŠVADOS**

**EVALUATION REPORT
OF MASTER *CHEMISTRY* (state code - 621F10001,
previous – 62403P102)
STUDY PROGRAMME
at Vilnius University**

Grupės vadovas: Prof. dr. A. Irabien
Team Leader:

Grupės nariai: Dr. Alberts Prikulis
Team members: Prof. habil. dr. E. Norkus

Dr. V. Kairys
.....

Išvados parengtos anglų kalba
Report language - English

Vilnius
2011

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Chemija</i>
Valstybinis kodas	621F10001
Studijų sritis	Fiziniai mokslai
Studijų kryptis	Chemija
Studijų programos rūšis	Universitetinės
Studijų pakopa	Antroji
Studijų forma (trukmė metais)	Nuolatinė (2)
Studijų programos apimtis kreditais ¹	80
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Chemijos magistras
Studijų programos įregistravimo data	1997 gegužės 19

¹ – vienas kreditas laikomas lygiu 40 studento darbo valandų

INFORMATION ON ASSESSED STUDY PROGRAMME

Name of the study programme	<i>Chemistry</i>
State code	621F10001
Study area	Physical Sciences
Study field	Chemistry
Kind of the study programme	University studies
Level of studies	Second
Study mode (length in years)	Full – time (2)
Scope of the study programme in national credits	80
Degree and (or) professional qualifications awarded	Master in Chemistry
Date of registration of the study programme	19 May , 1997

© Studijų kokybės vertinimo centras
The Centre for Quality Assessment in Higher Education

CONTENTS

I. INTRODUCTION.....	4
<u>II. PROGRAMME ANALYSIS.....</u>	
1. Programme aims and learning outcomes.....	5
2. Curriculum design	6
3. Staff	7
4. Facilities and learning resources	8
5. Study process and student assessment.....	9
6. Programme management	10
III. RECOMMENDATIONS	11
IV. GENERAL ASSESSMENT.....	8

I. INTRODUCTION

The Faculty of Chemistry of Vilnius University offers three levels of degrees in Chemistry, Master's Degree being the second one. There are approximately 50 students in the Master's programme in Chemistry.

The students pursue both research and attend to theoretical courses to achieve the goals and learning outcomes. A large portion of the students continue on to pursuing a PhD degree, either in the same University, or in other institutions of higher education. The following is a short analysis of the Programme and different aspects of it.

The programme was registered in 1997. It underwent a previous external evaluation in 1999, which evaluated the programme positively, and also gave suggestions for improvement.

Below, a short analysis of the programme and related components is presented by an external panel of experts.

II. PROGRAMME ANALYSIS

1. Programme aims and learning outcomes

The programme aims and learning outcomes are well defined, clear and publicly accessible.

The programme aims and learning outcomes are generally based on the academic requirements, and to some extent on public needs and the needs of the labour market. Due to the industry demands, one would like to see a larger role for the technology in the programme aims and learning outcomes.

The programme aims and learning outcomes are consistent with the type and level of studies and the level of offered qualifications.

The name of the programme, its learning outcomes, content and the offered qualifications are compatible one with each other.

Main strengths and weaknesses

Strengths

1. The program allows the student to acquire enough knowledge and skills to continue on to the PhD degree, or for the employment outside of academia.

Weaknesses

1. The industrial/technological direction of the program could be improved.

2. Curriculum design

The curriculum design of the VU Master's in Chemistry programme meets legal requirements.

Study subjects and/or modules are spread evenly, their themes are not repetitive. The subjects cover a wide range of subjects of interest for the Master's Degree in Chemistry student. Essentially all courses are elective (within one or two blocks each semester) which gives the student significant freedom of choice to develop skills and knowledge. The newest curriculum was adopted in 2011 and it is still under development.

The content of the subjects and/or modules is consistent with the Master's degree level of the studies in Chemistry.

The content and methods of the subjects/modules are generally appropriate for the achievement of the intended learning outcomes.

The scope of the programme is generally sufficient to ensure learning outcomes. According to some employers views, students could receive more knowledge of management skills and related subjects, useful, for example, for a future head of a laboratory or chemist in a manufacture plant. Similarly, some graduates wished there were more technological/industrial component in the Master's curriculum.

The content of the programme reflects the latest achievements in Science and Technology.

Main strengths and weaknesses

Strengths

1. The curriculum gives to the students a high level of knowledge in the subjects of study.
2. The curriculum is well-designed, with many courses being elective.

Weaknesses

1. The curriculum is missing some topics on technology and management which would be useful for the student's future.
2. A creation of separate Master's program for Conservation and Restoration Chemistry has been suggested in the meetings.

3. Staff

The Master's Degree in Chemistry is provided by staff meeting legal requirements.

The qualifications and the number of the teaching staff seems to be adequate to ensure learning outcomes.

Teaching staff turnover is able to ensure an adequate provision of the programme.

The Vilnius University and the Faculty of Chemistry creates conditions for the professional development of the teaching staff necessary for the provision of the programme.

The teaching staff of the programme is involved in research directly related to the study programme being reviewed.

Main strengths and weaknesses

Strengths

1. The staff are well-qualified and knowledgeable, and conduct a high quality research.
2. The staff are always willing to help to the students in their requirements.

Weaknesses

1. Lecturers' interaction skills with the audience (students) can be improved.

4. Facilities and learning resources

The facilities for students are adequate both in their size and quality.

The teaching and learning equipment (laboratory and computer equipment, consumables) are adequate both in size and quality.

The higher education institution has appropriate arrangements for students' practice.

Teaching materials (textbooks, books, periodical publications, databases) in the library are adequate and accessible.

Main strengths and weaknesses

Strengths

1. The experience gained using the equipment in the laboratories is appropriate for further studies and/or employment.
2. The facilities are in a process of expansion, and are being equipped with new updated equipment.

Weaknesses

1. Some employers point out a lack of experience of the graduates with the newest lab equipment.
2. In some places the use of information and communications technologies can be improved.

5. Study process and student assessment

The admission requirements are well-founded.

The organisation of the study process ensures an adequate provision of the programme and the achievement of the learning outcomes.

Students are encouraged to participate in research activities.

Students have opportunities to participate in student mobility programmes such as Erasmus, but not many of them apply for these options.

The Vilnius university and its Faculty of Chemistry ensures an adequate level of academic support and social support to the students.

The assessment system of students' performance is clear, adequate and publicly available.

Professional activities of the majority of graduates meets the programme expectations.

Main strengths and weaknesses

Strengths

1. The student assessment system is well defined and clear to the students.
2. Students are encouraged to participate in research, which helps to achieve goals of the program and learning outcomes.

Weaknesses

1. The students do not apply to exchange programme.

6. Programme management

Responsibilities for decisions and monitoring of the implementation of the programme are clearly allocated.

Information and data on the implementation of the programme are regularly collected and analysed.

The outcomes of internal and external evaluations of the programme are used for the improvement of the programme.

The evaluation and improvement processes involve stakeholders.

The internal quality assurance measures are effective and efficient.

Main strengths and weaknesses

Strengths

1. The program control is in place and generally functions effectively.

Weaknesses

1. In internal quality assessment, in many cases, there is a lack of policy towards statistical trends regarding the students, e.g., student satisfaction of the studies.

III. RECOMMENDATIONS

- 3.1. The students could benefit from enhancing a technical direction in the programme and in the learning outcomes.
- 3.2. Teaching of lab management elements and economics in the curriculum could help students to become more effective laboratory directors and industrial employees.
- 3.3. Some seminars or workshop to increase interactive skills with the audience may be useful for the staff.
- 3.4. A creation of a separate Master's program in Restoration and Conservation Chemistry was suggested and may be considered.
- 3.5. Some effort could be spent to introduce English language into teaching, and invite professors from abroad in order to increase the communication skills in English.
- 3.6. Students would be encouraged to participate in mobility programmes.
- 3.7. Internal quality control and data recopilation should be well defined. The attitude towards trends in student statistics should be well thought through, so that the Faculty policy is clear on those subjects.

IV. GENERAL ASSESSMENT

The study programme Chemistry (state code – 621F10001, previous – 62403P102) is given **positive** evaluation.

Study programme assessment in points by fields of assessment.

No.	Evaluation Area	Evaluation Area in Points*
1.	Programme aims and learning outcomes	3
2.	Curriculum design	3
3.	Staff	4
4.	Material resources	3
5.	Study process and assessment (student admission, study process student support, achievement assessment)	3
6.	Programme management (programme administration, internal quality assurance)	3
	Total:	19

*1 (unsatisfactory) - there are essential shortcomings that must be eliminated;

2 (satisfactory) - meets the established minimum requirements, needs improvement;

3 (good) - the field develops systematically, has distinctive features;

4 (very good) - the field is exceptionally good.

Grupės vadovas:
Team Leader:

Prof. Dr. Angel Irabien

Grupės nariai:
Team members:

Prof. Dr. Eugenijus Norkus

Dr. Alberts Prikulis

Dr. Visvaldas Kairys