

# STUDIJŲ KOKYBĖS VERTINIMO CENTRAS CENTRE FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

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# **INFORMATICS FIELD OF STUDY**

# Vilniaus verslo kolegija

# **EXTERNAL EVALUATION REPORT**

# **Expert panel:**

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2. Academic member: Prof. dr. Claus Pahl

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4. Social partner: Juozas Breivė

5. Student representative: Tautvydas Kvietkauskas

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# I. INTRODUCTION

# 1.1. OUTLINE OF THE EVALUATION PROCESS

The study field evaluations in Lithuanian higher education institutions (HEIs) are based on the following:

- Procedure for the External Evaluation and Accreditation of Studies, Evaluation Areas and Indicators, approved by the Minister of Education, Science, and Sport;
- Methodology of External Evaluation of Study Fields approved by the Director of the Centre for Quality Assessment in Higher Education (SKVC);
- Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).

The evaluation is intended to support HEIs in continuous enhancement of their study process and to inform the public about the quality of programmes within the study field.

The object of the evaluation is all programmes within a specific field of study. A separate assessment is given for each study cycle.

The evaluation process consists of the following main steps: 1) self-evaluation and production of a self-evaluation report (SER) prepared by a HEI; 2) a site visit of the review panel to the HEI; 3) the external evaluation report (EER) prepared by the review panel 4) accreditation decision taken by SKVC and its publication; 4) follow-up activities.

The main outcome of the evaluation process is the EER prepared by the review panel. The HEI is forwarded the draft EER to report on any factual mistakes. The draft report is then subject to approval by the external Study Evaluation Committee operating under SKVC. Once approved the EER serves as the basis for an accreditation decision. If a HEI is not happy with the outcome of the evaluation, HEI can file an appeal.

On the basis of the approved EER, SKVC takes one of the following accreditation decisions:

- Accreditation granted for 7 years if all evaluation areas are evaluated as exceptional (5 points), very good (4 points), or good (3 points).
- Accreditation granted for 3 years if at least one evaluation area is evaluated as satisfactory (2 points).
- Not accredited if at least one evaluation area is evaluated as unsatisfactory (1 point).

# 1.2. REVIEW PANEL

The review panel was appointed in accordance with the Reviewer Selection Procedure as approved by the Director of SKVC.

The composition of the review panel was as follows:

1. Panel chair: Prof. dr. Philippe Bonnet

2. Academic member: Prof. dr. Claus Pahl

3. Academic member: dr. Lukas Daniel Klausner

4. Social partner: Juozas Breivė

5. Student representative: Tautvydas Kvietkauskas

# 1.3. SITE VISIT

The site visit was organised on 6 of May 2024 in hybrid.

Meetings with the following members of the staff and stakeholders took place during the site visit:

- Senior management and administrative staff of the faculty(ies)
- Team responsible for preparation of the SER
- Teaching staff
- Students
- Alumni and social stakeholders including employers.

There was a need for translation during the meeting.

#### 1.4. BACKGROUND OF THE REVIEW

#### Overview of the HEI

Vilniaus verslo kolegija (VVK) is a college established in 1989. VVK is accredited to grant a professional bachelor's degree in Physical sciences, Social sciences and the humanities.

# Overview of the study field

VVK currently provides three programmes in the field of Informatics. Programming and Internet Technologies (PIT) is the current incarnation of a study programme focused on computer programming first established in 2001, renewed and renamed in 2007 and running since 2018 in its current form. The Game Development (GDev) and Interactive Media technologies (IMT) programmes were added in 2012 and 2017 respectively.

#### Previous external evaluations

The PIT (in a previous incarnation) and GDev study programmes were last evaluated in 2017 and 2016 respectively, with two separate evaluations. Both resulted in three years of accreditation. The IMT programme has never been evaluated.

# Documents and information used in the review

The following documents and/or information have been requested / provided by the HEI before or during the site visit:

- Self-evaluation report and its annexes
- Final theses

### Additional sources of information used by the review panel:

The following additional sources of information have been used by the review panel:

- Student surveys about the quality of studies
- Protocol for IT department meeting on 31/08/2023

# **II. STUDY PROGRAMMES IN THE FIELD**

# First cycle/LTQF 6

Title of the study programme	Interactive Media and Technology (IMT)	Programming and Internet Technologies (PIT)
State code	6531BX025	6531BX037
Type of study (college/university)	college	college
Mode of study (full time/part time) and nominal duration (in years)	full time (3)	full time (3) / part time (4)
Workload in ECTS	180	180
Award (degree and/or professional qualification)	Professional Bachelor of Computing	Professional Bachelor of Computing
Language of instruction	Lithuanian	Lithuanian, English
Admission requirements	Secondary education	Secondary education in last 5 years.
First registration date	2017	2018

Title of the study programme	Game Development (GDev)
State code	6531BX007
Type of study (college/university)	college
Mode of study (full time/part time) and nominal duration (in years)	full time (3)
Workload in ECTS	180
Award (degree and/or professional qualification)	Professional Bachelor of Computing
Language of instruction	Lithuanian, English
Admission requirements	Secondary education (with minimal score 2 (LT), B2 english language level (EN)).
First registration date	2012

# **III. ASSESSMENT IN POINTS BY CYCLE AND EVALUATION AREAS**

The first cycle of the Informatics study field at Vilniaus verslo kolegija is given a **positive** evaluation.

No.	No. Evaluation Area			
1.	Study aims, learning outcomes and curriculum	3		
2.	Links between scientific (or artistic) research and higher education	3		
3.	Student admission and support	4		
4.	Teaching and learning, student assessment and graduate employment	3		
5.	Teaching staff	3		
6.	Learning facilities and resources	3		
7.	Quality assurance and public information	3		
	Total:	22		

<sup>&</sup>lt;sup>1\*</sup> **1 (unsatisfactory)** - the area does not meet the minimum requirements, there are substantial shortcomings that hinder the implementation of the programmes in the field.

**<sup>2</sup>** (satisfactory) - the area meets the minimum requirements, but there are substantial shortcomings that need to be eliminated.

**<sup>3</sup>** (good) - the area is being developed systematically, without any substantial shortcomings.

<sup>4 (</sup>very good) - the area is evaluated very well in the national context and internationally, without any shortcomings.

<sup>5 (</sup>exceptional) - the area is evaluated exceptionally well in the national context and internationally.

# III. STUDY FIELD ANALYSIS

# AREA 1: STUDY AIMS, LEARNING OUTCOMES AND CURRICULUM

1.1. Programmes are aligned with the country's economic and societal needs and the strategy of the HEI

#### **FACTUAL SITUATION**

# 1.1.1. Programme aims and learning outcomes are aligned with the needs of the society and/or the labour market

There is a strong demand for Informatics specialists in Lithuania and in the EU as documented in SER p. 9. The three programmes Interactive Media and Technology (IMT), Programming and Internet Technologies (PIT) and Game Development (GDev) are aligned with these needs.

During the visit, stakeholders made it clear that VVK graduates correspond well to their expectations. The protocol of the department meeting mentions that stakeholder input is taken into account for regular revisions of the study programmes. The visit confirms that stakeholders are involved. However, the process to involve stakeholders is largely informal. A more visible process should make it possible to engage stakeholders in a way that is more visible, inclusive and accountable so that the programme alignment with society and the labour market is reinforced.

# 1.1.2. Programme aims and learning outcomes are aligned with the HEI's mission, goals, and strategy

The three programmes are anchored in the department of Information Technologies and under the responsibility of the head of the study programmes committee. The SER establishes that the programmes are aligned with the HEI's strategy for 2021-27 (SER pp. 9–10).

The SER mentions entrepreneurship as a strategic priority for the VVK. The visit made it clear that there are Team Academy projects with both business and Informatics components. Such projects are very positive and should be generalised.

### **ANALYSIS AND CONCLUSION (regarding 1.1.)**

The aims and learning outcomes of the programmes IMT, PIT and GDev are aligned with the needs of society and the strategy of the College for 2021-27.

Programmes comply with legal requirements, while curriculum design, curriculum, 1.2. teaching/learning and assessment methods enable students to achieve study aims and learning outcomes

# **FACTUAL SITUATION**

#### 1.2.1. Programmes comply with legal requirements

The structure of the programme complies with the legal requirements (SER pp. 10–11). The learning outcomes for the study programmes correspond to the Description of the group of fields of study in computer science. Annex 1 illustrates how the different courses of the study programme contribute to these learning outcomes.

#### 1.2.2. Programme aims, learning outcomes, teaching/learning and assessment methods are aligned

Annex 1 establishes the relationship between study programmes and learning outcomes. Annual teacher training sessions are organised to review the alignment between learning outcomes, teaching and assessment methods (SER p. 13). During the visit, it was made clear that these sessions are under the responsibility of the head of the IT department.

#### 1.2.3. Curriculum ensures consistent development of student competences

The curriculums in the three programmes are based on a progression throughout the course of the studies, leading to the final thesis.

# 1.2.4. Opportunities for students to personalise curriculum according to their personal learning goals and intended learning outcomes are ensured

The SER describes the opportunities for students to take free elective courses across study programmes (p. 15).

### 1.2.5. Final theses (applied projects) comply with the requirements for the field and cycle

The final thesis complies with the requirements of a Bachelor in the field of informatics. The process for the choice of thesis, supervision and evaluation are described in the SER (p. 17).

#### **ANALYSIS AND CONCLUSION (regarding 1.2.)**

The learning outcomes defined for the Bachelor are largely aligned with the Description of the group of fields of study in the computer sciences. The programme would benefit from a more formalised involvement of stakeholders in the yearly revisions of the study programme. The changes that are implemented and the motivation for these changes should be documented in more detail.

#### **AREA 1: CONCLUSIONS**

AREA 1	Negative - 1 Does not meet the requirements	Satisfactory - 2  Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3  Meets the requirements, but there are shortcomings to be eliminated	Very good - 4  Very well  nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle			3		

### **COMMENDATIONS**

- 1. The contribution of each course to the learning outcomes of the study programme is carefully mapped.
- 2. Students have the ability to take elective courses throughout the study programmes from the College.

#### **RECOMMENDATIONS**

# To address shortcomings

1. The process to engage stakeholders in annual revisions of the study programmes should be made explicit and transparent.

# For further improvement

1. Joint projects between business and IT students under Team Academy should be generalised.

# AREA 2: LINKS BETWEEN SCIENTIFIC (OR ARTISTIC) RESEARCH AND HIGHER EDUCATION

2.1. Higher education integrates the latest developments in scientific (or artistic) research and technology and enables students to develop skills for scientific (or artistic) research

#### **FACTUAL SITUATION**

#### 2.1.1. Research within the field of study is at a sufficient level

The VVK conducts applied research activities, in collaboration with stakeholders. The department of Information Technologies conducts such applied research activities as described in the SER (pp. 19–22). The SER as well as the visit emphasised that two persons are responsible for all relevant publications. There is a lack of breadth in terms of research contributions.

The visit established that there are no physical facilities to conduct research at the VVK (office space, labs). Researchers are expected to conduct their research at home.

# 2.1.2. Curriculum is linked to the latest developments in science, art, and technology

Stakeholders expressed their view that the curriculum of the PIT programme was a bit old-fashioned. The study programme committee takes input from stakeholders into account in an ad-hoc fashion for the revisions of the programmes (see 1.1.1 above).

### 2.1.3. Opportunities for students to engage in research are consistent with the cycle

The final thesis is the opportunity for students to engage in research, which is consistent with the characteristics of a Bachelor's programme.

## **ANALYSIS AND CONCLUSION (regarding 2.1.)**

The programmes benefit from the applied research conducted in the department of Information Technologies and from the projects conducted in collaboration with stakeholders (including the final thesis).

### **AREA 2: CONCLUSIONS**

AREA 1	Negative - 1  Does not meet the requirements	Satisfactory - 2  Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3  Meets the requirements, but there are shortcomings to be eliminated	Very good - 4  Very well  nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle			3		

#### COMMENDATIONS

1. The VVK has a clear definition of applied research activities.

# **RECOMMENDATIONS**

# To address shortcomings

- 1. The VVK should provide staff with physical facilities that make it possible for them to conduct research at a sufficient level.
- 2. The VVK should encourage more staff to conduct applied research with clear contributions.

# **AREA 3: STUDENT ADMISSION AND SUPPORT**

## 3.1. Student selection and admission is in line with the learning outcomes

#### **FACTUAL SITUATION**

#### 3.1.1. Student selection and admission criteria and procedures are adequate and transparent

The admission to the Informatics study programmes is carried out in accordance with the general provisions of the Lithuanian Association of Higher Education Institutions for General Admission Organisation (LAMA BPO) and the admission rules of VVK.

People are admitted to the VVK through a competition based on the applicants' compliance with the minimum requirements of the study program and the competition score. The applicant's competitive score consists of the main and additional criteria, the minimum competitive score is 2 points.

It can be seen that from 2023 total in the study field of informatics - 368 students, while in 2020 - 202 students. Therefore, the number of students increased by 166 students.

From the year 2020 to 2023 the established passing score of Programming and Internet Technologies increased from 2.1 to 2.58, also the highest score was from 7.01 to 9.25. Game Development lowest admission score increased from 2.32 to 2.43 and highest admission score increased by 2.99 points. The interactive Media and Technology increases are the lowest. For example, the lowest admission score from 2020 to 2023 increased only by 0.25, while the highest score increased by 0.50 points.

According to SER, the dropout of every study field is about 12%-20% in 2022. However, the number of entry students improved.

# 3.1.2. Recognition of foreign qualifications, periods of study, and prior learning (established provisions and procedures)

For departing students of partial studies, whose plan to study for one or more semesters under exchange programs is coordinated with the responsible department of VVK, comparing the content and scope of the current semester of SP with credits, based on the study plans of VVK and the partner higher education institution (to which studies are conducted). In this case, when the student returns after partial studies, the results are counted according to the academic certificate issued by the partner higher education institution.

Another one, those entering VVK who have previously studied at other Lithuanian or foreign higher education institutions and have a diploma or academic certificate, have the right to ask for the credit of their study results that correspond to the part of the content of the VVK specific study program, thus reducing the number of VVK subjects to be studied and shortening the study time. According to SER a maximum of 75% is counted. During the assessment period 2020-2023, 21 informatics students had their applications granted.

#### **ANALYSIS AND CONCLUSION (regarding 3.1.)**

Briefly, the number of students in the VVK is consistently increasing. Students dropout is ~12-20 percent which is reasonable because more students were admitted. The VVK complies with all admission regulations. The highest and the lowest passing score increased in 2023, compared to 2020-2022.

#### **FACTUAL SITUATION**

#### 3.2.1. Opportunities for student academic mobility are ensured

The VVK holds at least 2 times a year the Erasmus+ competition for studies and practice in the countries of the European Union. Only 7 students took advantage of the opportunity to study abroad under the Erasmus+ exchange program. During the assessment, several foreign students participated. There are very few foreign students in a group as students from abroad are mentioned. SER does not provide information about the admission of foreign students to the VVK. Students who know about ESN, miss it, but are generally satisfied with management involvement, lectures, and activities organised for foreigners. They said that it is easy to find suitable study programs at other universities. VVK students participate not only in the Erasmus+ exchange program, but also in other international projects such as Nordplus. Mainly students are studying full time.

International students do not have much cooperation with local students. Some points come together in the Interactive Media and Technology study program, but not in Programming and Internet technologies.

Information about the announced competition is sent personally to students by email, published on the VVK's website and on social media networks (Facebook, etc.), informational events are also held.

Academic mobility exists, but as management said, students do not want to go for Erasmus because of geopolitical situations or for personal reasons.

All information about the ability to study abroad can be found in the VVK official webpage.

# 3.2.2. Academic, financial, social, psychological, and personal support provided to students is relevant, adequate, and effective

Teachers provide consultations and additional materials as needed. The study coordinator advises on study issues. Practice managers advise and help to find practice places.

Students do observe changes to their feedback on study subjects (e.g. teachers with bad evaluations being let go). International students are assessed by the international department, teachers also provide surveys on their personal subject matter.

Teachers, the head of the department and the supervisors of professional activities contribute to students' career planning. Information is published by e-mail on the official website of VVK and there is a Facebook group related to internship and job searches. Students have to do two internships corresponding to the study topic. The majority of students stay in the companies where they did their internship.

According to the SER, the VVK provides students with the opportunity to receive support provided by the State Study Fund: state-sponsored loans for tuition fees and living expenses, social scholarships, study scholarships, support for foreigners of Lithuanian origin, reimbursement of tuition fees, targeted benefits for those with disabilities, compensation for those who have completed military service, as well as other tenders announced by the Foundation. Students with disabilities additionally (in addition to the social scholarship)

receive financial support provided by the Department of Disability Affairs under the Ministry of Social Security and Labor of the Republic of Lithuania. Invitations to receive support are published on the website of the VVK, as well as sent to students personally by email. Comparing the years, this almost doubled the number of students who applied to the state and received support (2020-2021: 19, 2022-2023: 37). The VVK provided free studies for Ukrainian students. The VVK offers tuition fee concessions for: family members of students and graduates, for subjects taken at the VVK or another higher education institution, as well as for students with disabilities. On average, student discounts are about 7 percent. direction of income. Also, students are allowed to pay for their studies in instalments.

All students must take the subject of psychology in the first semester, when a lot of attention is paid to self-knowledge, communication, and there are many practical classes. Also, the VVK supports the initiatives of the Lithuanian Students' Union related to strengthening the mental health of students in higher education institutions, and actively participates in making proposals for the creation of a positive emotional climate.

#### 3.2.3. Higher education information and student counselling are sufficient

During the socialisation week, meetings are held with the study programmes committee, teachers, social partners or VVK alumni who have just finished their studies. In the meetings, the structure of the program and the desired results are explained, the subjects of the first semester of study and the teachers who teach them are presented. Lectures on psychology, teamwork, effective work organisation methods and time planning are held for freshmen, led by professional teachers and consultants.

VVK takes into account the individual needs arising from disability in the context of studies: it is possible to use more flexible forms of payment, to extend the duration of settlement of control papers or taking the exam, to individualise the study process according to the needs arising from disability. The academic staff of the school is ready to work with such students since 2017. VVK employees participated in the project "Increasing the accessibility of studies" carried out by the State Study Fund and thus developed competences in this field.

The VVK has invested in the new Internal Information System UNIMETIS, where the student can see comprehensive information about studies, choose freely optional subjects, and can also make inquiries and receive feedback from the Studies Department centrally.

### **ANALYSIS AND CONCLUSION (regarding 3.2.)**

Students are reluctant to use the opportunity to study abroad. The management mentioned that this is due to geopolitical factors and early employment of students. Students have all the options and they themselves admit that they have the information but are not travelling for personal reasons. 7 students took advantage of the Erasmus+ program. Foreign students study full programs.

There are no incoming students only for the semester. Twice a year, students and Erasmus+ students need to provide feedback on the quality of the semester and the competences of the teachers. Some professors directly ask for students' opinions. Opinions are said to be taken into account and changes made.

Students are satisfied with the internships, the withdrawal of the VVK management and the teachers'. Places for internships can be searched by themselves or with the help of the College. Also it can be done at the VVK or at its partners. Teachers take the most advanced students to their workplaces and companies.

VVK provides discounts and more flexible payments for studies to students with disabilities. Studies were provided for free to Ukrainian students. All students have psychology lectures in the first semester, information is provided on the website, letters and campaign. Students did not complain about poor microclimate, bullying or discrimination. Information about studies is provided to students through events, lecturers, letters, and student representation. Meetings with alumni and company representatives are organised. Personal counselling for studies and practice is provided.

Students with disabilities are provided with consultations and payment deferrals.

VVK offers a supportive and inclusive environment with robust internship opportunities and comprehensive feedback mechanisms. Despite this, student engagement with study abroad programs, particularly Erasmus+, remains low due to geopolitical concerns, early employment priorities, and personal reasons. While students appreciate the VVK's flexible support systems, there is room for improvement in promoting the benefits of studying abroad and addressing related concerns. By enhancing promotion, offering flexible program options, and providing personalised counselling, the VVK can better encourage students to take advantage of international study opportunities, thereby enriching their academic and professional experiences.

### **AREA 3: CONCLUSIONS**

AREA 1	Negative - 1 Does not meet the requirements	Satisfactory - 2  Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3  Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle				4	

# **COMMENDATIONS**

1. Team Academy is teaching/learning innovation in the field of teaching innovations and technologies as a trend of applied research activities in the study field of Informatics gives project-based teaching and experiential learning, where students work in teams to solve real-world problems and gain practical knowledge and skills.

# **RECOMMENDATIONS**

#### For further improvement

- 1. Recommend to improve Erasmus Student Network to establish an office and encourage students to get involved in organising activities and events for foreigners.
- 2. Recommend to increase local students and foreign students' cooperation.
- 3. Recommend to improve opportunities for foreign students to come for one semester, not just a full semester should exist.
- 4. Recommend to adapt VvK's websites for people with disabilities in order to increase the accessibility of information on studies, available scholarships and necessary processes.

AREA 4: TEACHING AND LEARNING, STUDENT ASSESSMENT, AND GRADUATI EMPLOYMENT
4.1. Students are prepared for independent professional activity
FACTUAL SITUATION

# 4.1.1. Teaching and learning address the needs of students and enable them to achieve intended learning outcomes

There are 3 study programmes in the field of Informatics evaluated. Study forms and modes comply with the specified in SER. Study material is available on a distance learning platform also, as students prefer to attend distance theoretical lectures with contact work on weekdays.

Used teaching methods, like traditional theoretical lectures and practical work which are combined within field trips, applied exercises, presentations and conferences, case studies, work in groups, etc., allowing students to experience a variety of learning approaches.

In meetings with students, an experts panel ensured that there is a given opportunity to get additional consultations with lecturers or additional materials for better learning if needed. Lecturers provide opportunities for extra time for learning by course agenda to absorb difficult material.

Quality of skills required for the labour market are encouraged by guest lecturers. Social partners and graduates on meetings with the expert panel communicated that the VVK study program provides a proper quantity of applied work with good competences in software development and programming basics (e.g., C++) as well as knowledge on business management fundamentals.

However, few social partners complained about the reduced focus on cyber security in the study programme which impacts quality of graduates competence for secure software development practices and doesn't fully meet market demand. This is also observable in the final thesis where many topics require deep knowledge of cybersecurity aspects, and this subject is for free selection, not compulsory in study programs.

# 4.1.2. Access to higher education for socially vulnerable groups and students with individual needs is partially ensured.

Despite the statement that there are no students with special needs at this moment, building premises on Kalvariju str. are not adapted to the students with special needs. This is very important, as premises on Kalvariju str. has laboratories oriented to the evaluated study programs.

However, the study process is flexible and can be adapted to the needs of a disabled person as it was stated during the visit in meetings with VVK management.

There is no information on the VVK website about study process organisation for students with individual needs.

Being open for students with special needs may create a success story not only for business organisations in which such students will work but also for the institution itself.

## **ANALYSIS AND CONCLUSION (regarding 4.1.)**

After site visit, an expert panel group identified the need to review soft skills learning outcomes by adding teaching methods to strengthen formation of international teamwork, leadership, agile understanding, and problem solving skills.

Also, it is observable that most of the final thesis are proposed by the thesis supervisor, it means that there should be some applied research going on, however there were only 2 projects mentioned (e.g., related to blockchain) which were funded and had a separate budget from social partners. It is not clear how VVK is sponsored for applied research, and how this part of the study process is profitable to the institution, as research aim, which was observed by the expert panel, is understood as publishing papers mostly.

Also, observation done shows that sometimes thesis paper results are not implemented in reality as final aim - no applicability of applied research is implemented. However, some 1st year students come up with research on their ideas (example, firefighting robots idea) which are developed during the next year of studies.

Despite that VVK teachers from different departments participate in training on improvement of accessibility of studies and conditions for students with disabilities as it is stated in the self evaluation report, the premises are still not equipped with proper facilities to incorporate students with various disabilities in quality manner.

4.2. There is an effective and transparent system for student assessment, progress monitoring, and assuring academic integrity

#### **FACTUAL SITUATION**

4.2.1. Monitoring of learning progress and feedback to students to promote self-assessment and learning progress planning is systematic

Evaluation of study results and feedback provisioning to students on those results are defined by the study results evaluation process published in the VVK website (under For Students > Organising studies).

Students participate in the study planning and monitoring process's part: in the meetings students said that feedback is taken after the semester with formal QA about each subject. Professors, lecturers ask opinions about subjects, creating their own questionnaire. Erasmus students have to give feedback about studies, and for lecturers-curators also informal feedback can be given.

### 4.2.2. Graduate employability and career are monitored

Monitoring methods include tracking employment rates, collecting feedback from alumni and employers, conducting internal surveys, analysing data from employment services and government strategic analysis centres on the field of informatics related positions.

#### 4.2.3. Policies to ensure academic integrity, tolerance, and non-discrimination are implemented

There is Culture of Academic Ethics nurtured by implementing Code of General and Academic Ethics (document presented publicly on VVK website under For Students > Organising studies part). Code covers pedagogical, science research and students ethics. Implementation of this code includes usage of text similarity checker, plagiarism prevention using external information systems, and declarations of academic integrity.

## 4.2.4. Procedures for submitting and processing appeals and complaints are effective

There are processes for students to appeal regarding satisfactory and unsatisfactory results or study process.

### **ANALYSIS AND CONCLUSION (regarding 4.2.)**

Despite the study quality process implemented in VVK, provided examples of evaluation (e.g., 2022-2023 spring semester study quality evaluation report) are moderate. There are only general summaries done regarding every assessed topic and conclusions do not seem very informative to make a proper decision on quality improvement.

No breaches on Code of Ethics during the period of 2020-2023 shows preventive actions and processes on academic integrity, tolerance and non-discrimination principles are sufficient.

### **AREA 4: CONCLUSIONS**

AREA 1	Negative - 1 Does not meet the requirements	Satisfactory - 2  Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3  Meets the requirements, but there are shortcomings to be eliminated	Very good - 4  Very well  nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle			3		

# **COMMENDATIONS**

1. Good cooperation with social partners in game development related study program creates close connections on study quality assurance and students internship availability.

### **RECOMMENDATIONS**

# To address shortcomings

- 1. Information on study process organisation, grants and other facilities for students with special needs needs to be found not far as 3 clicks in the VVK website. Adopt a website for people with special needs.
- 2. Cybersecurity related topics need to be expanded in study programs, especially related to software development and programming. Make cybersecurity topics compulsory among other basic subjects.
- 3. Students with special needs must be taken into account by creating appropriate conditions for their access to the educational establishment in Kalvariju Street.

#### For further improvement

- 1. Encourage students by developing a process or a plan for stakeholder search among social partners with VVK support to develop their own ideas in further research and development funding.
- 2. Quality of study assessments questionnaire could be improved by a report with defined key performance metrics in summary evaluating gathered information and overseeing results change

over time. Consider onboard more quality assessment tools (etc. Microsoft Power BI for analysis and display of results) which provide a holistic view on results and create added value for decision making on improving study programs and processes.

#### **AREA 5: TEACHING STAFF**

### 5.1. Teaching staff is adequate to achieve learning outcomes

## **FACTUAL SITUATION**

5.1.1. The number, qualification, and competence (scientific, didactic, professional) of teaching staff is sufficient to achieve learning outcomes

The staff workload generally consists of teaching and in some cases administrative duties as the key activities. The teaching staff have during the visit expressed satisfaction with the level of tasks assigned and also their involvement in the process.

Staff recruitment is in line with legal requirements considering the past professional experience in order to ensure the competent delivery of course subjects and allowing the achievement of the defined learning

objectives. Teachers are generally recruited to meet the requirement of at least three years of work experience in their field, with the exception of two teachers.

Three study programmes are offered, of which two are also offered in English. The focal areas are interactive media, programming and gaming. The subject-specific expertise to support the three programmes is present among the teaching staff.

From 33 teachers teaching informatics subjects, only 6 have a teaching load of more than 0.5 FTE (full-time equivalents). 75% of the teachers have extensive practical experience. 23 have at least a B2 qualification in English. 24% of the teachers hold a doctoral degree. 19 out of 33 staff members list no publications in the evaluation period.

The duration that teachers are employed by the VVK ranges from newly employed to 21 years. Practical experience ranges from the minimum to 42 years and pedagogical experience up to 38 years.

The ratio between teachers and students is 1:15.

#### **ANALYSIS AND CONCLUSION (regarding 5.1.)**

The number of staff members is sufficient to teach the subjects in the programme. The teachers satisfy the formal requirements. Their competence is generally sufficient. Only the scientific competences should be improved in order to increase the scientific aspects of the study subjects and also scientific activities in the overall study programme.

There are not many full-time teachers. The teaching staff consists mainly of part-time teachers, many of whom participated in our meetings. These are often practitioners, who combine their main professional activities with teaching in the VVK. Many teach at the college for many years, resulting in a low teaching staff turnover.

This situation, while working at present, can still be seen as a risk if the part-time teachers need to re-adjust their availability. However, a convincing commitment to their work at the VVK is at present noticeable. It can be noted as positive that many teachers work for a long time at the VVK, but part-time scenarios do increase the risk of fluctuation and more full-time positions would provide better continuity and ensure dependable quality.

The teaching staff is balanced in terms of qualifications and expertise. The different subject areas in the informatics domain are represented. Professional experience exists as required. Sufficient didactic expertise exists. Both practical and didactic experience varies in terms of number of years. However, this reflects a healthy balance between younger and more senior staff members. The number of teachers with good English language capabilities is sufficient to teach the two English language variants of the three study programmes that are offered.

Some teaching staff are also involved in administrative duties. This appears to be done in consensus with the respective staff members and no concerns regarding unjust allocation or lack of sufficient compensation was made.

The student/teacher ratio is good, which results in a great satisfaction of the teachers with this as it allows personal and targeted interaction with students.

The degree of involvement in research varies. The teaching staff's scientific activity and production cannot be judged as good. There is no consistent activity and output throughout. The focus on publication as the central measure of scientific output is neither sufficient to evaluate research nor does it encourage various forms of activities including contract research or stakeholder engagement in this respect.

A comprehensive research strategy is not adequately formulated, which leaves the scientific expectation for staff members uncertain. A more comprehensive strategy that values activities beyond publications would allow staff members to see value in research engagement beyond publications. This would benefit the scientific expertise of staff and would benefit the teaching in scientific terms. Here, an improved research framework could encourage research participation and thus an improved scientific impact on teaching.

In conclusion, the competences are sufficient to achieve the learning outcomes. An improvement of scientific concerns and an increase of more full-time employment are desirable, though.

5.2. Teaching staff is ensured opportunities to develop competences, and they are periodically evaluated

#### **FACTUAL SITUATION**

#### 5.2.1. Opportunities for academic mobility of teaching staff are ensured

Internationalisation is a priority of the VVK. The administration provides sufficient information on mobility possibilities. Applications for mobility are examined and approved by management under certain criteria as long as teaching continuity is maintained. A defined procedure for this exists that describes the procedure and criteria for mobility support.

The ERASMUS programme is widely used by a significant number of staff members. Many have used this opportunity several times. Opportunities for mobility are generally provided as long as circumstances allow this. The teachers feel very well supported in this regard.

During the evaluation period 4 teachers from universities abroad visited the VVK to give lectures under the Erasmus+ program (ingoing staff), whereas 5 staff members visited universities abroad for teaching in Latvia and Poland (outgoing staff).

# 5.2.2. Opportunities for the development of the teaching staff are ensured

The VVK provides personal development activities, allowing the planning and implementation of each teacher's professional development, including participation in mobility programs, professional development courses and seminars and scientific conferences.

The expenses for these ranged from €4827 to €24547 per year.

The VVK provides a number of measures to allow the professional development of teaching staff. This covers pedagogical, scientific and managerial activities. The VVK has implemented a targeted training plan for teaching excellence, which combines courses on pedagogical as well as managerial concerns.

On an annual basis, goals and activities are defined by a dedicated department. A significant number of the teachers are practitioners, and the VVK puts effort in improving their educational competences, by offering training seminars for the teachers, who are aimed to develop appropriate study, teaching and assessment methods.

Development opportunities in terms of course and other formats can be requested and are generally approved.

The VVK allows students to participate in the teachers' evaluation, adding another perspective to input received from the VVK management.

Support in strategically relevant areas today such as problem-based learning or management competencies are offered to teachers.

## **ANALYSIS AND CONCLUSION (regarding 5.2.)**

Staff mobility is at a good level, given the challenges caused by the COVID-19 pandemic during the evaluation period. The support is good and only limited to ensure ongoing teaching activities. Useful links with colleagues and institutions abroad have been established through this.

Mobility programmes have been used to enrich teaching as well as establish and enhance research collaborations. The numbers of incoming and outgoing teaching staff are well balanced. However, more of the INF subject teachers should be more encouraged to participate in mobility programmes in order to enhance core INF subject teaching.

The VVK has defined teacher assessment methods based on a range of criteria. However, it is unclear whether this method in practice achieves its objectives. Teachers are scientifically not sufficiently productive.

Pedagogical and language competencies are sufficient to ensure support for ongoing teaching commitments. However, in order to ensure the expansion of internationally oriented course programmes and allow a better exchange between local and international students, the English language capabilities of all teachers should be enhanced.

The staff development measures are very well received by the staff members. Staff members feel presented well in decision procedures around these concerns. A well-defined plan for enhancing teacher competences exists.

Strong variations in the expenses for these activities can be attributed to the difficulties resulting from the COVID-19 pandemic.

In conclusion, the mobility level is good. A significant effort should be made to improve scientific activities. While generally at a good level, English language capabilities should be expanded to all teachers to further the internationalisation of programmes throughout.

### **AREA 5: CONCLUSIONS**

AREA 1	Negative - 1 Does not meet the requirements	Satisfactory - 2  Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3  Meets the requirements, but there are shortcomings to be eliminated	Very good - 4  Very well  nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle			3		

#### **COMMENDATIONS**

- 1. Highly motivated and committed teachers.
- 2. The staff-to-student ratio allows teachers to address the individual needs of students.
- 3. Encouraging scientific activity through salary benefits is a commendable incentive to achieve the goal.
- 4. Teacher mobility is at a level that allows contacts to be established to other institutions and to acquire new teaching and research skills.

### **RECOMMENDATIONS**

## To address shortcomings

- 1. The involvement of all teachers in scientific activities should be improved in order to better infuse research into teaching and strengthen scientific understanding and skills.
- 2. The low number of full-time teachers for whom the VVK is the main employer is a potential risk. VVK should aim to increase the number of full-time teachers.

### For further improvement

- 1. It is suggested to implement a research strategy that values research income and stakeholder needs in order to increase scientific activities of staff.
- 2. It is suggested to increase the English language capabilities of all teachers to allow a further internationalisation of study programmes.
- 3. More of the INF subject teachers should be encouraged to participate in mobility programmes in order to enhance core INF subject teaching.

#### AREA 6: LEARNING FACILITIES AND RESOURCES

6.1. Facilities, informational and financial resources are sufficient and enable achieving learning outcomes

#### **FACTUAL SITUATION**

# 6.1.1. Facilities, informational and financial resources are adequate and sufficient for an effective learning process

The VVK organises its three study programmes in two premises: Kalvarijų str. and Saltoniškių str., Vilnius. The premises in Saltoniškių str. are new and surrounded by business centres - the experts haven't had the opportunity to visit premises in person, but there was video material provided. The renovated Kalvariju str. premises are situated in a previous factory building. The VVK is situated on the 4th floor. The classes and administration offices are bright and have modern furnishings.

The VVK has classrooms and auditoriums, which are spacious and fully equipped with multimedia support necessary for teaching. There are 2 general computer classrooms and 2 specialised (audio visual equipped and for robotics and microprocessing programming) used for the evaluated study programmes. The premises are divided into lecture halls, medium-sized classrooms, computer laboratories, zones for group work, a library, reading room, and leisure areas. There is a variety of software and technology available for student work, including software for artistic material preparation and presentation, including the possibility to work with 3D graphics and animation, tools for software development and programming, including work with IoT technologies and computer networking.

The students can use their own laptops within the college's premises or connect when they are at home via the appropriate tools to attend classes. The VVK implemented a virtual learning environment (based on Moodle), where teaching materials and all useful information for students are posted. The whole VVK is covered with wireless internet connection allowing students to use their personal computers.

There is a space for the student's leisure time, but there is no college canteen on premises to use for students.

Premises of VVK do not have sufficient equipment for students with movement disabilities.

The VVK offers to the students a list of the recommended institutions and companies (locally, in international companies, or their subsidiaries) where they can carry out their internship, but the students can also search for an internship by themselves.

The library has 10 computerised workplaces and 13 places in the reading room. The library provides access to a range of the most popular academic databases and other electronic resources (Lithuanian and abroad) as well as periodical publications. There are paper books related to the study program field to some extent in a library. Students have access to online resources even when they are not in the college premises.

Teachers do not have their own offices, but common workstations with the ability to use personal laptops or shared computers are provided.

The VVK does not own any dormitory infrastructure. Students have the option to stay in the dormitories that are provided by cooperation with other study institutions.

For internal and external communication on study topics and to provide the information on everything study-related, the college uses website, email, social media and newsletters for the students. One of the communication channels mentioned in the self evaluation report was vKontakte, according to VVK management, which was used previously to support russian speaking students. Now it is suspended as no russian or belorussian students do study at the VVK anymore.

#### 6.1.2. There is continuous planning for and upgrading of resources.

There are plans for a new VVK building where the classes and offices that are currently located separately in two premises, would be moved to the one new location, additionally providing dormitories for students and all fundamental infrastructure for disabled people.

The VVK has made investments into computer equipment, with over 150 thousands of EUR spent throughout the years 2020-2024.

#### **ANALYSIS AND CONCLUSION (regarding 6.1.)**

The VVK provides properly equipped and modernly renovated or furnished premises for study. There are plans for new premises to be built to move all study processes into one place. However, most of the students state that they are participating in studies remotely as many of them have to work and not participate much on site. There must be a strong case for investing in new premises, taking into account all the additional costs involved in managing such assets. If such a plan is implemented, the spaces should be created to be flexible and in line with changing student needs.

Despite the fact that there is no canteen locally, there are plenty of places to eat in the surrounding area. Also, there is the ability for students to heat up their meals with microwaves within the leisure area on premises.

While the VVK does not provide sufficient infrastructure (elevators, parking spaces, equipment for audio or visual disabilities, etc.) for students with disabilities, it was stated by VVK management that every case is solved individually, for instance providing flexibility regarding extending the duration of checking assignments or examinations and preparing study process according to the needs. It was stated that there were no such cases so far that disabled persons would visit on premises.

As the library provides access to its electronic resources from outside the VVK, the number of seats on premises could be adjusted as appropriate. As there is an increasing number of library resources online, maybe one librarian is not enough to properly support students on their efficient search of e-books and other electronic resources in various formats. There was no clear process for the acquisition of additional commercial literature not covered by existing licences and agreements that was observed.

The VVK has classrooms with a large number of computerised workstations for general IT lectures. Although the majority of students use personal computers that they bring and the institution provides the possibility to use the learning software in a personal environment during their studies, such a number of shared computer workstations is not financially viable, as it is necessary to plan a budget for the continuous updating

of the hardware. Also, possible drop-off rates during the first year that impacts on the needed hardware on site could be considered.

In a time of increasing student laptop ownership, the VVK could adopt a model based on providing laptops (e.g. Chromebooks) for those that do own one. This would allow to remove fixed PCs from labs, resulting in lower costs and also the opportunity to create more flexible learning spaces.

In the same direction, the VVK should also consider changing student behaviour towards more access to digital resources than printed material (for the library) and also more remote access from outside the VVK. This again would reduce costs, allow easier updating and enable the flexible usage of space (e.g. in the library).

VVK developed good cooperation with the social partners and employers as far as the students' internships are concerned. However, despite the fact that the Career Center was established 3 years ago, the 2023 alumni assessment showed the need to communicate information on job and internship offers.

#### **AREA 6: CONCLUSIONS**

AREA 1	Negative - 1 Does not meet the requirements	Satisfactory - 2  Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3  Meets the requirements, but there are shortcomings to be eliminated	Very good - 4  Very well  nationally and internationally  without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle			3		

#### **COMMENDATIONS**

- 1. An adequate number of electronic resources, books and journals exists.
- 2. Close relations with social partners and employers that help the institution to develop its study program are present.
- 3. Efforts for renewal of the premises and consequent improvement of study conditions are on-going.

#### **RECOMMENDATIONS**

## To address shortcomings

- 1. The Career Centre should be enabled to cooperate more effectively with students during their studies and when looking for a job or internship, establish a clear annual plan for Career Centre development by setting and monitoring key performance indicators in order to properly integrate VVK students into the labour market or to offer suitable internship positions.
- 2. A process shall be defined that allows students to acquire additional commercial study materials (for example, for their final thesis) through library procedures, which are not available in the form of electronic or paper library resources.
- 3. The VVK official website needs to be adjusted for people with disabilities according to Web accessibility design rules.

### For further improvement

- 1. The efficiency of the management of computerised teaching spaces should be improved by encouraging students to use personal computers, thus reducing the cost of upgrading computers classrooms for general IT lectures (example, using Microsoft Office software, etc.), leaving a few workstations available, and redirecting the cost savings by considering renting hardware equipment and being elastic regarding the enrolled students number.
- 2. In the ongoing discussion of the construction of new facilities, the following concern should be taken into account: drop-out rates of students in the first year and investing these funds to strengthen the laboratories' training base, developing teachers' competences and improving teachers' work conditions including spaces to conduct research. If new premises are required, a more flexible organisation in terms of remote access and reduced physical material is advised.
- 3. The development of more the competences and/or capacities of library employees shall be considered to properly and in a timely manner support students on search for electronic resources within provided e-library databases instead of buying general purpose paper books, like it was observed on place (Uncle's Tom Cabin novel by American author Harriet Beecher Stowe).

# **AREA 7: QUALITY ASSURANCE AND PUBLIC INFORMATION**

7.1. The development of the field of study is based on an internal quality assurance system involving all stakeholders and continuous monitoring, transparency and public information

#### **FACTUAL SITUATION**

# 7.1.1. Internal quality assurance system for the programmes is effective

VVK applied an internal quality assurance system that follows the standards of the European Higher Education Area as well as ISO 9004.

Internal quality assurance processes involve VVK's Academic Council and the Department of Studies as well as the Department of Information Technologies and the respective Study Programme Committee. The respective procedures are defined in the VVK Quality Management System.

More recently in 2020, a dedicated Department of Teaching Innovations has been instituted, which has a dedicated focus on ensuring study quality and helping to improve teaching standards, amid other tasks.

With regard to quality assurance of distance studies, a distinct process exists. Here, the Head of Distance Learning is jointly responsible with the respective Department Heads to ensure well-functioning distance learning and a high quality of teaching and learning.

### 7.1.2. Involvement of stakeholders (students and others) in internal quality assurance is effective

There are dedicated regular feedback cycles involving students, graduates, teachers and employers, which are described in detail in the SER.

Additionally, the feedback of other stakeholders (additional social partners, international partners, educational experts) is sought through more informal and less structured channels.

While there is some structured information on the results, a detailed summary of response rates for most of the surveys has not been provided. The description of the most recent graduates' surveys (cf. section 4.2.2) indicates that graduates considered their studies to have prepared them well for their first job.

According to the SER, graduates in particular highlighted project-based learning at VVK as having equipped them with practical skills required in the workplace.

This analysis was confirmed in the meeting with graduates and social partners. Both graduates and social partners mostly spoke highly of the practical skills of VVK graduates.

Criticism was mentioned by a social partner from the cyber security sector, who criticised recent changes to the curriculum and wished for more frequent stakeholder involvement.

Other stakeholders (from game development and educational technologies) praised the level of stakeholder involvement and graduates' skill levels, with some degree of criticism of transferable skills, teamwork and project management.

Exemplary graduate feedback results similarly indicate that a stronger focus on transferable, presentational and social skills would be welcome.

# 7.1.3. Information on the programmes, their external evaluation, improvement processes, and outcomes is collected, used and made publicly available

The SER describes in detail in what ways the feedback and opinion of students, teachers, social partners and graduates is sought, with which (relatively broad) goals in mind, and in which institutional contexts the results are usually discussed and considered. This confirms a systematic, repeatable process for validation, improvement and publication.

The SER explicitly stresses that beyond formal feedback and quality assurance processes, VVK has an institutional culture that values continuous improvement, teamwork and constructive feedback.

#### 7.1.4. Student feedback is collected and analysed

The SER makes no mention of the National Student Survey app, but states that student feedback is sought through internal opinion surveys once a year.

In the site visit meeting with current VVK students, the general opinion was that students' feedback is appreciated and reflected, with some participants offering examples of how feedback had recently been taken into account (e.g. bad teaching evaluations).

### **ANALYSIS AND CONCLUSION (regarding 7.1.)**

The level of detail of the description of internal quality assurance mechanisms, stakeholder involvement, etc. is adequate. The evaluation as well as possible remediations and publications follow a systematic, well-defined procedure that takes most of the stakeholders' opinions sufficiently into account.

While the practical skills of graduates seem to be meeting market demand, transferable skills seem somewhat lacking and feedback to this effect could have been more systematically taken into account.

Stakeholder involvement of social partners seemed to be more informal and not very well documented, but still working generally well and without having caused serious concerns from their perspective.

Overall, while internal quality assurance is highly structured, feedback cycles and processes would benefit from a more dedicated and formal process structure that is fully documented in terms of all aspects (including response rates).

### **AREA 7: CONCLUSIONS**

AREA 1	Negative - 1 Does not meet the requirements	Satisfactory - 2  Meets the requirements, but there are substantial shortcomings to be eliminated	Good - 3  Meets the requirements, but there are shortcomings to be eliminated	Very good - 4 Very well nationally and internationally without any shortcomings	Exceptional - 5 Exceptionally well nationally and internationally without any shortcomings
First cycle			3		

#### **COMMENDATIONS**

- 1. There is a highly structured internal quality assurance system.
- 2. Feedback is regularly sought from different stakeholders.
- 3. The introduction of the Department of Teaching Innovations is positively noted.

#### **RECOMMENDATIONS**

### To address shortcomings

- 1. The results of the various feedback processes/opinion surveys should be given more attention, both in internal practices and in reporting. This would increase measurability and reliability and thus help strengthen claims made in the SER w.r.t. to continuous improvement of the study programme.
- 2. Employer feedback w.r.t. the lack of transferable skills of graduates (i.e. teamwork, project lifecycle management, risk management, ...) needs to be taken into account and reflected in the study programme.

# For further improvement

- Some of the feedback processes (e.g. those with social partners) would benefit from a higher degree
  of structure and formality, also with an eye towards more measurability in results and changes over
  time.
- 2. Student and graduate involvement in feedback processes could be incentivised more strongly; here awareness and participation in the various surveys could be improved.

# IV. SUMMARY

We would like to thank the HEI for the good quality of the SER and for a well-structured and pleasant visit.

The three programmes are strongly anchored in the IT department and well managed by the head of this department. The study programme aims, learning outcomes and curriculum are aligned. Team academy is a strength that should be developed further. This report identifies a few shortcomings related to the visibility and transparency of a few processes that are managed informally for now (stakeholders' involvement in study programme revision, student feedback) and to the involvement of staff in research activities.

A review of students' final theses reveals that a significant number of the theses deal with cybersecurity aspects, but there is not a strong cybersecurity component in the study programme.

Strong and coherent links with the social partners and employers allow us to maintain a curriculum that is in demand in the labour market and produces the right graduates.

While there is a clear attrition of students in the first year of study, investment in infrastructure and facilities is increasing. This may pose cost-effectiveness concerns for the institution in the future.

Overall, the VVK has well-established structures in place to manage the evolution of the study programmes.