



STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

MYKOLO ROMERIO UNIVERSITETO
VERSLO INFORMATIKOS STUDIJŲ PROGRAMOS
(612I10006)
VERTINIMO IŠVADOS

EVALUATION REPORT
OF *BUSINESS INFORMATICS* (612I10006)
STUDY PROGRAMME
AT MYKOLAS ROMERIS UNIVERSITY

Grupės vadovas:
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Išvados parengtos anglų kalba
Report language – English

Vilnius
2013

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	<i>Verslo informatika</i>
Valstybinis kodas	612I10006
Studijų sritis	Fiziniai mokslai
Studijų kryptis	Informatika
Studijų programos rūšis	Universitetinės studijos
Studijų pakopa	Pirmoji
Studijų forma (trukmė metais)	Nuolatinė (3,5 m.), iššęstinė (5 m.)
Studijų programos apimtis kreditais	210 ECTS
Suteikiamas laipsnis ir (ar) profesinė kvalifikacija	Informatikos bakalauras
Studijų programos įregistravimo data	Lietuvos Respublikos švietimo ir mokslo ministro 2008 m. vasario 22 d. įsakymu Nr. ISAK-430

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	<i>Business Informatics</i>
State code	612I10006
Study area	Physical Sciences
Study field	Informatics
Kind of the study programme	University Studies
Study cycle	First
Study mode (length in years)	Full-time (3,5 years), part-time (5 years)
Volume of the study programme in credits	210 ECTS
Degree and (or) professional qualifications awarded	Bachelor of Informatics
Date of registration of the study programme	22 of February 2008, under the order of the Minister of the Ministry of Education and Science of the Republic of Lithuania No. ISAK-430

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The Centre for Quality Assessment in Higher Education

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I. INTRODUCTION

The procedures of the external evaluation of the Mykolas Romeris University (hereafter, MRU) *Business Informatics* bachelor study programme were initiated by the Centre for Quality Assessment in Higher Education of Lithuania nominating the external evaluation peer group formed by the head, Professor Roland Ibbett (Emeritus Professor of Computer Science, University of Edinburgh, Scotland and Chair of the Accreditation Committee of the European Quality Assurance Network for Informatics Education (EQANIE)), Professor Jürgen Dorn (Vienna University of Technology, Vienna, Austria), Professor Philippos Pouyioutas (University of Nicosia, Cyprus), Aleksej Kovaliov (Head of the Centre of Software Development, TEO LT, TellaSonera Group, Lithuania), employer representative, and Justinas Petravičius (Vilnius Gediminas Technical University, Lithuania), student representative.

For the evaluation the following documents have been considered:

1. Law on Higher Education and Research of Republic of Lithuania;
2. Procedure of the External Evaluation and Accreditation of Study Programmes;
3. Methodology for Evaluation of Higher Education Study Programmes;
4. General Requirements of the First Degree and Integrated Study Programmes.

The basis for the evaluation of the study programme is the Self-Evaluation Report (hereafter, SER), prepared in 2013, its annexes and the site visit of the expert group to MRU on 23 October 2013. The visit incorporated all required meetings with different groups: the administrative staff of the Faculty of Social Policy, staff in the Institute of Communication and Informatics responsible for preparing the self-evaluation documents, teaching staff, students of all years of study, graduates and employers. The expert group evaluated various support services (classrooms, laboratories, library, computer facilities), examined students' final works, and various other materials. After the expert group discussions and additional preparations of conclusions and remarks, introductory general conclusions of the visit were presented. After the visit, the group met to discuss and agree the content of the report, which represents the expert team consensual views.

Academic programmes at MRU are primarily in the area of social sciences. MRU has Faculties of Economics & Finance Management, Politics & Management, Law, Social Policy and Public Security. The study programme in *Business Informatics* is the responsibility of the Institute of

Communication and Informatics (hereafter the Institute), part of the Faculty of Social Policy. The study programme of *Business Informatics* has been running for over 5 years but was recently updated under an EU funded project and was approved in its present form by the MRU Senate in March 2013. The purpose of the study programme is to produce computer science graduates who are able to work within businesses as business information systems experts.

The numbers of students entering the programme full-time has declined from 50 State funded and 40 full price students in 2008 to 11 State funded and 9 full price students in 2012, while the number of part-time students has fallen from 30 to 0. A number of factors have contributed to this decline but the requirement that students enrolling to study informatics at university must have studied informatics at school has not been helpful.

II. PROGRAMME ANALYSIS

1. Programme aims and learning outcomes

The study programme aim is to educate students for the labour market in the area of information systems. Graduates shall be able to advise, design and consult in business information infrastructure, to design, install, manage, sell and integrate business information systems and to provide support in the development of business information solutions. The aim is motivated by European strategic programmes and the potential lack of experts in Lithuania.

The study programme is published on the MRU Webpages, in both Lithuanian and English. All applicable Lithuanian laws are regarded. The name of the study programme is compatible with the aim and content of the study. The programme is described in terms of competences that graduates will have achieved, two generic and three subject-specific. In a table in the SER, the 21 intended programme learning outcomes are mapped to these competences. The competences are about applications of ICT in organisations. The presentation is generally clear, although competence group 2 (communication and cultural competence, according to the relevant webpage at https://stdb.mruni.eu/studiju_programos_aprasas.php?id=2392&l=en) is missing from the SER. The panel feels that the competences could more clearly identify the nature of the programme and would be improved by greater subdivision to allow inclusion of terms such as software engineering, project management and e-business between organizations (areas that are, at least to some extent, covered in the programme).

In Annex 7 of the SER, individual course intended learning outcomes are mapped to the programme intended learning outcomes (*e.g.* the courses: “Fundamentals of Programming”, “Computer Architectures and Operation Systems”, “Data Structures and Algorithms” and “User Interface Design and Programming” are intended to achieve the programme intended learning outcome: “Ability to analyze and create algorithms, to plan strategies how to design algorithms, create software systems, design and construct business information systems”).

The authors of the SER write that they have prepared the programme according to recommendations of international organizations. One referenced recommendation is the e-Competence framework of the EU, however, the framework could not be recognized in the description of the intended learning outcomes. A further source for improvement could be the ACM/AIS Curriculum Guidelines.

2. Curriculum design

The programme is designed to run over 7 semesters, *i.e.* 3.5 years for full-time students. A schedule for part-time students distributes all courses over 10 semesters (5 years). The programme consists of 210 ECTS which is the minimum allowed by Lithuanian law.

The programme provides courses in information technology and business management in a quite healthy mix. Courses are scheduled for pre-defined semesters and 60 ECTS of courses are assigned to each academic year. The sixth semester is devoted to professional practice, the seventh to the bachelor thesis.

The curriculum design meets the minimum requirements to ensure the achievement of the intended learning outcomes and needs improvement. There are some serious drawbacks identified both with the content of the curriculum and the courses/themes spread.

According to the intended learning outcomes contained in the SER and the confirmation given by administrative and teaching staff during the visit, the programme aims to prepare bachelors of Informatics aligned towards IT management, business management and entrepreneurship. Therefore a serious gap is identified in the curriculum content since formal education on such disciplines as project management, IT operations management, business and information system analysis, strategic marketing, corporate finances is missing or substituted by trainings on specialized software tools, as in case of the courses “Information Systems of Project Management”, “Finance and Business Information Systems”. The panel recommends the Institute to redesign the curriculum to include formal education on project management, IT operations and service management, corporate finances, strategic marketing with a focus on product management.

The study subjects are not spread evenly and non-repetitively in all cases. The curriculum is designed in such a way that 1st year / 1st semester provides neither programming nor computer architecture courses, which are necessary to lay the basics of Informatics. The panel recommends that the Institute rearranges the programme so that most of the 2nd year courses related to IT and programming move to the 1st year. For example, courses such as 2nd year “Computer Architectures and Operating Systems”, “Data Structures and Algorithms”, “Databases”, “User Interface Design and Programming” could be taught earlier in the programme.

The intended learning outcomes and the lectures content of the “Distributed Information Systems and Data Protection” course are not consistent. The provided mix of the client-server architecture

overview with data protection techniques does not fit with the declared outcomes of: understanding the data storage structure and the purpose of projects, to be able to select components of the distributed databases...be able to set up and organize access to different level distributed information systems...be able to understand and know the structural and organizational principles of the distributed database (information from the description of the course unit on the Web). Distributed information systems, distributed databases and client server architectures should not be used as substitutes or synonyms. There are also other courses with inconsistency between the intended learning outcomes and the lecture topics. The “Information Systems of Project Management” course intended learning outcomes: “Ability to analyse database design principles”, “Ability to plan basic database design phases” are not relevant to the subject. The “Databases” course intended learning outcomes: “To be able to: select the appropriate database management system. -integrate information system with a database management” are not addressed in the lectures, since the database management systems overview and comparison is missing; modern databases, such as No-SQL, are not addressed. Instead, this course covers irrelevant and repetitive PHP development. The intended learning outcomes of the course “User Interface Design and Programming” are disputable since they treat user interaction only as a layer between the user and a database. Meanwhile user experience and interaction analysis and design disciplines normally address the link between the user and the function or process. This course misses the topics on usability analysis discipline, popular user interface design approaches such as mockups and wireframes: interaction with the special purpose devices and mobile are also not addressed. The intended learning outcomes of the course “Specialized programming languages” are declared as very generic and do not reflect the specifics of the course. Meanwhile the course concentrates on low-level programming of microcontrollers and devices using C++, which is a rare specialization and a very narrow niche market. Taking into account the fact that market demanded programming languages and technologies (*e.g.* mobile applications development), are not sufficiently addressed by the programme, the dedicated course on microcontroller programming does not seem relevant to the business orientation of the programme. The panel recommends that the Institute redesigns these courses to ensure consistency between intended learning outcomes and lecture topics or considers cancellation of some courses and instead introduces formal managerial and analytical disciplines, as recommended above.

3. Staff

The programme is delivered by 33 staff, 11 professors, 11 associate professors and 11 lecturers, with an age profile of 24% in the age range 25-34, 18% 35-44, 18% 45-54, 21% 55-64 and 18% ≥ 65 . 23 are qualified to doctoral level (70%). This distribution over the age range is conducive to an appropriate turnover of staff. However, most of the computing technology courses are delivered by lecturers who are qualified to masters but not doctoral level, though several of them are studying for PhDs, typically at Vilnius University. During the visit the panel learnt that some have graduated since the SER was completed, so the panel was satisfied that the proportion of staff teaching the totality of informatics courses meets legal requirements, that their qualifications are adequate to ensure the intended learning outcomes, and that the situation will actually improve over time.

9 members of staff appear to have part-time posts, since they list employment in companies or other universities as well as at MRU. Whilst it is good to have lecturers who bring real-life commercial experience to the University, the panel was concerned about the availability of part-time staff and their level of commitment to the students at MRU. However, during the visit, the panel was re-assured that part-time staff have timetabled consultation hours, often in the evenings or at week-ends, which are especially important for part-time students but which are also used by full-time students. Industry staff also make valuable contributions in terms of suggesting thesis topics.

The SER lists a considerable number of visiting lecturers from around the world but makes no statement regarding the contribution these visitors actually make to the programme or how their contributions fit into the curriculum delivery and assessment processes. During the visit the panel was re-assured that the contributions of overseas staff were directly related to the curriculum and that the visitors provided assignments and examinations.

Most staff list a reasonable number of scientific works and whilst these are related to the study programme, in many cases they are simply documents local to MRU or other universities in Vilnius and not publications in refereed journals or conferences outside Lithuania. During the visit some staff were very keen to re-assure the panel that they were active internationally, so although the situation is mixed, enough of the staff are engaging internationally to ensure a flow of new ideas into the Institute.

The number of students currently studying is reported in the SER as 133 full-time and 14 part-time. Even counting the part-time students as 1 full-time equivalent, this gives a student/staff ratio of 4.5:1 which is very generous by international standards. Given the dramatic drop in admissions over the past 5 years, it is difficult to see how this programme can be sustained. The SER presented survey data that appear to show that there is strong demand for graduates from programmes of this type, though the results of such surveys are questionable (*e.g.* "The STEM Crisis is a Myth" IEEE Spectrum, Sept 2013), and this apparent demand does not translate into student intake numbers. During the visit the panel was advised that staff involved with this study programme also teach on other programmes at MRU, so the overall effect of the drop in admissions to this programme is serious but not desperate.

4. Facilities and learning resources

The premises for studies are adequate both in their size and quality. The University is located in well-equipped offices with a high level of comfort for the students and teachers both in terms of premises and technological equipment. All classrooms are modern, renovated or constructed recently according to modern standards. Premises and classrooms are also accessible for persons with disabilities.

The computer equipment and software is modern and available in adequate numbers. All computer workstations are connected to the Internet and wireless internet coverage is also sufficient for the students to use their own devices throughout the premises. Students are enabled to use the computer equipment both during the theory lectures and practical work. Students are provided with all necessary tools and physical/virtual environments for practical work. Student practical arrangements are fully adequate and even exceptional in the case of courses on computer networks and financial management systems.

The data-centre, computer network, virtual and physical environments are properly maintained and secured. All IT operations are delivered by dedicated staff and according to clear policies.

Both traditional and e-library are available and actively used by the students. Library, reading rooms, premises for self-study and group-work are freely available during prolonged hours. The Library offers very modern bestseller books on informatics and management in reading rooms.

Notwithstanding previous recommendations, the panel does not think that a requirement to have at least 5 texts on a course reading list is appropriate or necessary for informatics courses, except insofar as students ought to be offered at least one alternative to the main text.

The arrangements for student practical work are adequate. Students' awareness of potential employment and career requirements is sufficient, although students are not fully aware of ongoing industrial events and activities of professional communities. The panel recommends the Institute to consider additional communication about professional community events and activities, such as gatherings of IT professionals, conferences, project management associations, start-up accelerators and boot-camps.

5. Study process and student assessment

The admission requirements are well-founded but the drop in admission numbers is a major concern. Firstly, the panel agrees with the Institute that the obligatory State informatics school exam is an obstacle for pupils who would like to study business and informatics, so the panel suggests that the University lobbies the Ministry of Education and Science to remove the obligatory State informatics exam, both to attract more new students and to give better consistency with the aims and goals of the programme. Secondly, the panel suggests that the Institute considers promoting this study programme in schools by sending students, or even lecturers and professors, to give promotional presentations.

The organisation of the study process does not fully ensure adequate provision of the programme and the achievement of the intended learning outcomes. Firstly, students have very different views about what they think this programme teaches in comparison with views of the staff. Although the Institute believes that this programme prepares students to be business or project managers, among the students whom the panel met, none of the students agreed. The majority thought they would be IT experts rather than project managers or business people, unlike business graduates who did not have to take the State informatics exam.

Students do not seem to be encouraged to participate in research activities. Although the SER states that students are allowed to participate in such activities, firstly they do not seem to know about this, because they aren't introduced to it, and secondly, it is not enough to just allow. So the panel recommends at least introducing students to research activities, though it would be best if teachers or the Institute could find research projects for the students and make them part of a course, this way encouraging students to participate in such activities.

Students have opportunities to participate in international mobility programmes but as stated in the SER and confirmed during the meetings, both with graduates and undergraduates, the

number of students participating in student mobility programmes is very low because the majority have jobs.

Both the University and the Institute provide an excellent level of academic and social support for students, through the activities of a variety of cultural and sporting groups. There is also an active Student's Representative Body (MRU SA).

The assessment system of students' performance is clear, adequate and publicly available. The subsequent careers of many of the graduates do not necessarily fit with the Institute's expectations, in the sense that they become informatics experts rather than business people, and although this is not a serious issue, the Institute should give some thought to changing this perception.

6. Programme management

The programme is managed and reviewed according to standard and well established methods and techniques that involve all stakeholders, namely, teaching staff, students, graduates and employers/social partners. Furthermore, there is a very good hierarchical structure of committees and academic managers that oversee programme management at University level. The main responsibility for programme management and review lies with a well-qualified and structured Faculty Committee consisting of 13 members involving all stakeholders (teaching staff, students, employers). The work of the committee is coordinated/overseen by the Academic Affairs Centre and the Quality Assurance Group, which provide the framework and internal regulations for programme management. The Faculty Council, the Senate Study Commission and the Senate approve any changes with regards to programme re-engineering.

The fact that in 2012 the University received the ECTS label indicates that the programme (and all University programmes) and its courses (study subjects) are well documented and expressed in terms of intended learning outcomes and address all ECTS Label requirements (admission criteria, occupation profiles of graduates, programme structure, etc.). A correct implementation of the ECTS system and award of the Label requires a rigorous re-engineering (review, re-design) of programmes of study. The report lists also various European and International directives/standards that have been taken into consideration in re-designing the programme. This indicates the commitment of the University to the European Higher Education Area reforms taking place. Furthermore, voluntary institutional assessment (by IAU and EUA), as pointed out in the report, indicates the commitment of the University towards quality assurance. Finally, the

programme has undergone an evaluation within the context of a funded project by two Lithuanian independent experts from other institutions (Vilnius University and Lithuanian University of Educational Sciences).

The report briefly describes various ways of implementing quality assurance with regards to improving and delivering the curriculum that involve utilizing the input, active participation and feedback of all stakeholders. With regards to teaching staff, this entails participation in the Study Programme Committee (hereafter, SPC) for reviewing the curriculum and their peer review and teacher development process. With regards to employers and the social partners, this entails their participation also in the SPC and their input through polls and questionnaires. Finally, students also participate in the SPC and provide input through course (not programme level however) evaluation at the end of every semester, as well as through meetings with various academic managers during the semesters.

To some extent the quality assurance system falls short of its ideals in practice, *e.g.* the self-evaluation group that prepared the SER did not include any students or social partners, though during the visit the panel was assured that representatives were consulted. In general the involvement of the social partners is mainly on a non-systematic, informal basis. During the visit they expressed the view that their input takes time to be translated into relevant action, *e.g.* suggestions for adding new courses may be delayed due to some university and/or legislative bureaucracy (this is typically the case in most universities). Similarly, there is a lack of formal or regular contact with the alumni of the programme.

The process through which responses to feedback received from the various stakeholders is communicated back to the stakeholders is also informal rather than formal. For example, after completing the questionnaires, students do not formally receive any feedback or information on actions taken. However, students do have access to "student counsellors" who are students who receive feedback from their fellow students, which they communicate to the teachers and then report back informally to the students.

III. RECOMMENDATIONS

1. The Institute is recommended to invest more effort in marketing this degree programme.
2. The University is encouraged to lobby the Ministry of Education and Science regarding the requirement that students entering an Informatics degree programme must have passed the school examination in informatics because this is reducing the pool of candidates.
3. Whilst the mappings between competences, programme and course intended learning outcomes are generally good, the panel recommends that the Institute re-casts the top-level competences to clarify and better reflect the study programme content.
4. The panel observed that the lecture material specified in some of the course descriptions is not sufficient or appropriate to meet the stated intended learning outcomes, and recommends a thorough review of the courses to ensure consistency.
5. The panel recommends that the Institute rearranges the curriculum so that most of the courses related to IT and programming currently in second year be moved to the first year.
6. The Institute is encouraged to consider offering courses that cover project management, IT operations management, software quality assurance and marketing strategies, by cancelling some existing courses if necessary.
7. The Institute is encouraged to promote student engagement with research activities.
8. The Institute is recommended to promote and encourage greater student mobility. The Institute is recommended to build stronger links with its alumni and social partners and to more fully involve students, alumni and social partners in ongoing development of the programme.
9. The Institute is strongly recommended to ensure that its internal quality assurance mechanisms are fully implemented *e.g.* by formally recording any actions taken based on the analysis of feedback received from the stakeholders and communicating this to them.

IV. SUMMARY

The *Business Informatics* bachelor study programme aims to educate specialists who are able to manage business information systems and supporting infrastructure in organizations. It provides courses in information technology and business management in a quite healthy mix. The programme is designed around a set of high-level competences supported by a set of programme intended learning outcomes, themselves supported by the individual course intended learning outcomes. These are generally well designed, but below this level there are some problems in that the lecture material specified in some of the course descriptions is not sufficient or appropriate to meet the stated intended learning outcomes, and a thorough review is recommended.

There are a number of highly relevant subjects that do not currently form part of the curriculum and which could usefully be incorporated, especially in areas such as project management, IT operations management, business and information system analysis, strategic marketing, and corporate finances. The panel also identified that some changes to the assignment of courses to years of study would be advantageous in providing students with the essential grounding they need in computing earlier in the programme.

The study programme is strongly focussed on applied issues of information systems in contrast to research and development of information system solutions. Students gain knowledge about current information system solutions and should have fast access to the labour market due to this knowledge. By contrast, however, this means graduates will have few experience in developing information systems in teams, will obtain less formal knowledge and will lack competences in the long run for solving larger problems and managing development teams. Therefore there should be stronger emphasize on developing team working and other soft skills in the study programme.

The Institute is confronted with the problem of decreasing number of students and the panel recommends addressing this issue by marketing the programme better at secondary schools and trying to convince the Ministry of Science and Education to drop registration constraints to be able to attract more students. Since staff also contribute to other study programmes, the lack of students is not a serious problem at the moment, but it may become more serious in the next years if the student number decreases further.

The legal regulations concerning staff are met by existing staff, but it is obvious that at the moment several lecturers delivering computing technology courses have not yet finished their Ph.D studies. This problem will decrease over time, but it shows also the imbalance between business management and informatics at the Institute. Many lecturers come from industry, which is a strong asset for the programme, but the programme management must carefully integrate these teachers into the quality assurance framework which is typically more difficult than for regular staff.

Publications of the staff show that international research does not seem to be encouraged. This means a lack of knowledge flow from the outside into the University. If international students are to be attracted by the *Business Informatics* programme and if the exchange of MRU's students is to be expanded, more research oriented education is advised. Otherwise it will be difficult for foreign students to use the learning outcomes gained at the Institute and MRU's students will have problems to participate in foreign courses.

The learning facilities are very good at MRU and would also support working in teams and shows attractiveness to foreign students.

The programme management is designed along international standards and best practice methods involving all stakeholders. However, during the visit of the expert team the participation of students, alumni and social partners was not very strong and it showed that the actual involvement especially for the continuous improvement of the programme is not as good as expected. Often stakeholders are not aware of existing methods. Thus it was recommended to improve the communication to these stakeholders.

V. GENERAL ASSESSMENT

The study programme *Business Informatics* (state code – 612I10006) at Mykolas Romeris University is given **positive** evaluation.

Study programme assessment in points by evaluation areas.

No.	Evaluation Area	Evaluation Area in Points*
1.	Programme aims and learning outcomes	3
2.	Curriculum design	2
3.	Staff	3
4.	Material resources	4
5.	Study process and assessment (student admission, study process student support, achievement assessment)	3
6.	Programme management (programme administration, internal quality assurance)	3
	Total:	18

*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.

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**MYKOLO ROMERIO UNIVERSITETO PIRMOSIOS PAKOPOS STUDIJŲ
PROGRAMOS *VERSLO INFORMATIKA* (VALSTYBINIS KODAS – 612I10006) 2013-12-
12 EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-548 IŠRAŠAS**

<...>

V. APIBENDRINAMASIS ĮVERTINIMAS

Mykolo Romerio universiteto studijų programa *Verslo informatika* (valstybinis kodas – 612I10006) vertinama **teigiamai**.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	3
2.	Programos sandara	2
3.	Personalas	3
4.	Materialieji ištekliai	4
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	3
	Iš viso:	18

* 1 - Nepatenkinamai (yra esminių trūkumų, kuriuos būtina pašalinti)

2 - Patenkinamai (tenkina minimalius reikalavimus, reikia tobulinti)

3 - Gerai (sistemiškai plėtojama sritis, turi savitų bruožų)

4 - Labai gerai (sritis yra išskirtinė)

IV. SANTRAUKA

Verslo informatikos bakalauro studijų programos tikslas – rengti specialistus, kurie gebėtų valdyti verslo informacines sistemas ir palaikyti organizacijų infrastruktūrą. Santykis tarp dėstomų informacinių technologijų ir verslo vadybos studijų dalykų yra nustatytas pakankamai aiškiai. Studijų programa yra sudaryta orientuojantis į aukšto lygio kompetencijas, kurių įgyjimas paremtas studijų programos numatomais studijų rezultatais, pastarieji remiasi studijų dalykų numatomais studijų rezultatais. Numatomų studijų rezultatų formuluotės yra aiškos, tačiau vis dėlto ekspertų grupė identifikavo tam tikrus egzistuojančius trūkumus: kai kurių dalykų aprašuose nurodyta mokomoji medžiaga yra nepakankama arba netinkama numatomiems studijų rezultatams pasiekti, taigi rekomenduojama ją peržiūrėti.

Studijų programa šiuo metu stokoja studijų dalykų, susijusių su projektų vadyba, informacinių technologijų operacijų valdymu, verslo ir informacinių sistemų analize, strategine rinkodara bei įmonių finansais, kurie į tokio tipo studijų programą turėtų būti įtraukti didesniu mastu. Be to, ekspertų grupė pastebėjo, kad, siekiant užtikrinti laipsnišką studentų žinių įgyjimą, būtų tikslinga peržiūrėti studijų dalykų išdėstymo seką, atsižvelgiant į studijų metus, kuriuose tam tikrus studijų dalykus (ypatingai susijusius su kompiuterija) būtų tikslingiau dėstyti.

Studijų programa yra orientuota į taikomuosius informacinių sistemų aspektus, o ne į informacinių sistemų sprendimų mokslinius tyrimus ir jų tobulinimą. Studentai įgyja žinių apie esamus informacinių sistemų sprendimus, todėl turėtų kaip įmanoma greičiau integruotis į darbo rinką, siekdami pritaikyti turimas žinias. Antra vertus, tai reiškia, kad absolventai turi per mažai informacinių sistemų vystymo grupėse patirties, įgyja mažiau formalių žinių ir ilgainiui jiems gali pritrūkti kompetencijos spręsti didelio masto problemas bei vadovauti vystymo grupėms. Todėl šios studijų programos atžvilgiu reikėtų daugiau dėmesio skirti grupiniam darbui bei kitų socialinių įgūdžių tobulinimui.

Institutas susiduria su studentų skaičiaus mažėjimo problema, todėl ekspertų grupė rekomenduoja šią problemą spręsti aktyviau populiarinant studijų programą vidurinėse mokyklose bei stengiantis įtikinti Lietuvos Respublikos švietimo ir mokslo ministeriją panaikinti suvaržymus stojantiesiems, siekiant pritraukti daugiau studentų. Kadangi studijų programos akademinis personalas dėsto ir kitose studijų programose, mažas studentų skaičius šiuo metu nėra itin rimta problema, tačiau, jeigu tas skaičius ir toliau mažės, tai gali turėti itin neigiamos įtakos studijų programos vykdymui.

Šiuo metu darbuotojai atitinka teisės aktų reikalavimus taikomus personalui, tačiau pažymėtina, kad keletas kompiuterines technologijas dėstančių lektorių kol kas dar nėra baigę doktorantūros studijų. Ši problema ilgalaikėje perspektyvoje turėtų mažėti, tačiau, tai rodo, kad Institute tam tikru mastu egzistuoja disbalansas tarp verslo vadybos ir informatikos. Atkreiptinas dėmesys, kad nemažai studijų programos dėstytojų dirba pramonės sektoriuje; tai be abejonės naudinga studijų programai, tačiau studijų programos vadovai privalo užtikrinti minėtųjų dėstytojų įtraukimą į studijų kokybės užtikrinimo sistemą, nepaisant to, kad tai yra žymiai sudėtingiau nei nuolatinių darbuotojų atžvilgiu.

Darbuotojų mokslinės publikacijos rodo, kad tarptautiniai moksliniai tyrimai nėra skatinami. Tai lemia informacijos / žinių iš išorės stoką. Jeigu siekiama, kad *Verslo informatikos* studijų programą rinktųsi studentai iš užsienio, taip pat kad daugiau Mykolo Romerio universiteto

studentų dalyvautų mainų programose, patartina mokymą labiau sieti su moksliniais tyrimais. Kitu atveju, užsienio studentams bus sunku panaudoti šiame Institute įgytas žinias, atitinkamai Mykolo Romerio universiteto studentams kils problemų, susijusių su mokymusi kitų šalių studijų programose.

Mykolo Romerio universiteto materialieji ištekliai yra ypatingai geri. Studentams yra suteikiama galimybė dirbti grupėse, taip pat paminėtina, kad ištekliai yra patrauklūs studentams iš užsienio.

Programos vadybą yra numatyta vykdyti, atsižvelgiant į tarptautinius standartus ir gerą patirtį, įtraukiant visus socialinius dalininkus. Tačiau atkreiptinas dėmesys, kad vizito metu studentų, absolventų ir socialinių partnerių dalyvavimas nebuvo labai aktyvus, todėl vertinant studijų programą ekspertų grupė priėjo prie išvados, kad socialiniai dalininkai iš tikrųjų ne itin įsitraukia į nuolatinę studijų programos tobulinimo procesą. Daugelis socialinių dalininkų apskritai nėra susipažinę su šiuo metu taikomais studijų kokybės užtikrinimo metodais. Dėl šios priežasties ekspertų grupė rekomendavo stiprinti ryšius su socialiniais dalininkais.

III. REKOMENDACIJOS

1. Institutui patariama skirti daugiau dėmesio šios bakalauro studijų programos populiarinimui.
2. Universitetas skatinamas užmegzti dialogą su Lietuvos Respublikos švietimo ir mokslo ministerija siekiant panaikinti reikalavimą, kad norintieji studijuoti šią informatikos bakalauro kvalifikacinį laipsnį suteikiančią studijų programą būtų išlaikę informatikos egzaminą mokykloje. Minėtasis reikalavimas turi tiesioginės įtakos mažėjančiam stojančiųjų skaičiui.
3. Nors kompetencijos ir programos bei dalykų numatomi studijų rezultatai iš pažiūros yra gerai tarpusavyje suderinti, ekspertų grupė rekomenduoja Institutui peržiūrėti aukščiausio lygio kompetencijas, siekiant aiškiau ir geriau atspindėti studijų programos turinį.
4. Ekspertų grupė pastebėjo, kad mokomoji medžiaga, nurodyta kai kuriuose studijų dalykų aprašuose, nėra pakankama arba tinkama nurodytiems numatomiems studijų rezultatams pasiekti, tad rekomenduojama peržiūrėti dėstomus dalykus, taip užtikrinant nuoseklumą studijų programoje.

5. Ekspertų grupė rekomenduoja Institutui pertvarkyti studijų programą, kad daugelis su informacinėmis technologijomis ir programavimu susijusių studijų dalykų būtų dėstomi ne antraisiais, o pirmaisiais studijų metais.
6. Institutas skatinamas apsvarstyti, ar nereikėtų dėstyti studijų dalykų, apimančių projektų vadybą, informacinių technologijų operacijų vadybą, programinės įrangos kokybės užtikrinimą ir rinkodaros strategijas, prireikus atsisakant kai kurių šiuo metu į studijų programą įtrauktų studijų dalykų.
7. Institutas raginamas skatinti studentų dalyvavimą mokslo tiriamojoje veikloje.
8. Institutui rekomenduojama dar labiau skatinti studentų judumą. Rekomenduojama stiprinti ryšius su studijų programos absolventais ir socialiniais partneriais, taip pat kuo daugiau studentų, absolventų ir socialinių partnerių įtraukti į nuolatinį studijų programos tobulinimo procesą.
9. Išskirtinį dėmesį Institutas turėtų skirti vidinio kokybės užtikrinimo įgyvendinimui, pvz., oficialiai registruoti visus veiksmus, kurių buvo imtasi remiantis grįžtamojo ryšiu iš socialinių dalininkų, taip pat informuoti socialinius dalininkus apie tai, kas buvo atlikta.

<...>

Paslaugos teikėjas patvirtina, jog yra susipažinęs su Lietuvos Respublikos baudžiamojo kodekso¹ 235 straipsnio, numatančio atsakomybę už melagingą ar žinomai neteisingai atliktą vertimą, reikalavimais.

¹ Žin., 2002, Nr.37-1341.