



Republika e Kosovës
Republika Kosova - Republic of Kosovo



Agjencia e Kosovës për Akreditim
Agencija Kosova za Akreditaciju
Kosovo Accreditation Agency



***MSc Data Science and Business Analytics
ACCREDITATION***

REPORT OF THE EXPERT TEAM

Zagreb, May 2021



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Republika Kosova - Republic of Kosovo



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1. INTRODUCTION

1.1. Context

Date of site visit: March 31st 2021

Expert Team (ET) members:

- Prof. Dr. Damir Kalpić

Coordinators from Kosovo Accreditation Agency (KAA):

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

Sources of information for the Report:

- *Accreditation manual*
- *KAA Manual Annex 4.4. Template of the External Review Report for programs_09.07.2018*
- *Sample of a Final evaluation report*
- *CVs*
- *KAA Manual Annex 4.4. Template of the External Review Report for programs_09.07.2018*
- *Sample Compliance calculation - Banking and Finance BSc.Prishtina Univer...*
- *Riinvest - MSc Data Science and Business Analytics Final*
- *The history of Riinvest brand over the years, <https://www.riinvest.net/en/about/> (accessed on 01 April 2021).*
- *Virtual visit and meeting according to Chapter 1.2. Site visit schedule*

Criteria used for program evaluation:

- *Accreditation manual*
- *Personal experience in evaluations*
- *Personal experiences as university professor*
- *Personal experience as projects leader*



1.2. Site visit schedule

Kosovo Accreditation Agency (KAA)
Site Visit Program

Programme Accreditation Procedure at Riinvest College, Data Science and Business Analytics, MSc
Date: 31st of March 2021

Expert Team

- Prof. Emeritus, Damir Kalpić, University of Zagreb

Coordinators of KAA

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

Site Visit Program

31st March

09.00 – 09.40	Meeting with the management of the faculty where the programme is integrated (<i>no slide presentation is allowed, the meeting is intended as a free discussion</i>) – Joint session
09.45 – 10:30	Meeting with quality assurance representatives and administrative staff - Joint session
10:30 – 11:15	Lunch break
11:15 – 12:15	Meeting with the heads of the study programme Data Science and Business Analytics, MSc - Separate session



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12:20 – 13:00	Meeting with teaching staff – Separate session
13:05 – 13:45	Meeting with employers of graduates and external stakeholders – Separate session
13.50 – 14:00	Internal meeting of KAA staff and experts – Joint session
14:00 – 14:10	Closing meeting with the management of the faculty and program – Joint session

No	Study programs	Experts	Responsible persons of the program
1	Data Science and Business Analytics, MSc (Accreditation)	Damir Kalpić	Bernard Nikaj Astrit Rexhepi Albin Ahmeti

Other information

Overall instructions for HEIs

1. The students selected for the meeting should reflect a diversity in terms of fields of study, programme, study cycle, year of study, students with special needs if any, etc;
2. The teaching staff selected for the meeting should reflect a diversity in terms of faculties and programmes, full-time and part time, local and international, etc;
3. The students, graduates and employers of graduates should not be employed at the institution;
4. Anyone whose attendance won't be agreed in advance with KAA and the Expert Team will be asked to leave the interview session;
5. Nametags are to be provided for all people attending the meetings.

Contacts of the participants from KAA:

Shkelzen Gerxhalii – 044 836 831

Arianit Krasniqi – 045 499 951



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

RIINVEST was established and licensed in June 2007 following traditions to promote modern economic development of Kosovo based on a philosophy of entrepreneurship. With its strong research outputs and human resources for more than a decade of its activities, RIINVEST Institute provided a sound base to launch a university focusing on business, entrepreneurship, management, finance, and ICT education.

Several members of the Riinvest's academic staff were educated at prestigious European and American universities, connecting now their expertise in economics and computer sciences, as a strong foundation for respective studies at the already existing Bachelor and the proposed Master level. Since 2009, Riinvest has been validated to offer franchise programmes of Staffordshire University in the business area at the BA and MBA level.

Riinvest is approved by University of London and by London School of Economics to deliver programmes:

- BSc Data Science and Business Analytics
- BSc Management and Digital Innovation
- BSc Economics and Politics.

2. PROGRAM EVALUATION

2.1. Mission, objectives and administration

The declared mission of Riinvest College is to provide high quality studies and research that develop experts for the benefit of Kosovo's development needs, with the capacity to compete globally.

It is declared to stand behind the following values:

- Cultivating creativity, critical thinking, and innovation
- Tolerance
- High ethics and honesty
- Academic freedom
- Partnership and transparency towards stakeholders, institutions and the public
- Identification and ownership of our mission, vision and values by staff and students.



The mission in brief is presented on the Institution’s website, but it is to more detail very well described in the document mentioned above under title **Sources of information for the Report: Riinvest - MSc Data Science and Business Analytics Final.**

A controversy issue may be the following declaration:

”The graduate program is a highly selective program for students with a strong background in the social sciences, such as anthropology, business, economics, demography, management science, media science, political science, psychology, social history, or sociology, who want to become a data scientist and are interested in business and social science research questions. However, we are also open to ambitious learners from humanities such as history or linguistics, ...”

The above declaration can rise some doubts whether such strongly social sciences or humanities-oriented students would have the prerequisite knowledge for Data Science, which is close to the STEM field? Such a statement can mislead some of these students who are often not so much mathematically inclined. It is true that some linguists fit well to learning of programming languages, but it does not necessarily mean them to be equally apt for statistically and mathematically based data analyses. It reminds to a situation where to a native Chinese language speaker, without having knowledge of any Indo-European language, were offered postgraduate studies in Latin. Although software tools can diminish the requirement for detailed and deep mathematical knowledge, there were cases demonstrating the pitfalls of such approach. For instance, one can witness using linear regression in order to achieve empirical formulas, using them uncritically further on, even if in regression the coefficient of determination was close to zero, meaning that the empirical formula is not able to explain the behaviour of the analysed data.

Standard	Comment
<i>Standard 1.1.</i> The study programme mission is in compliance with the overall mission statement of the institution.	Although the mission is explained and described in an excellent way, due to the remark made above, the compliance will be judged as a weak “NO”.
<i>Standard 1.2.</i> Relevant academic and professional advice is considered when defining the intended learning outcomes which are consistent with the National Qualifications Framework and the	There has be no direct advice yet, but the general framework requirements appear to be met.



<p>Framework for Qualifications of the European Higher Education Area.</p>	
<p><i>Standard 1.3.</i> The study program has a well-defined overarching didactic and research concept.</p>	<p>Too much weight is given to narrative courses, marking an approach closer to social sciences and humanities than to the STEM area. Due to expert's opinion that better employment chances are in areas closer to STEM, the compliance would be "NO".</p>
<p><i>Standard 1.4.</i> There are formal policies, guidelines and regulations dealing with recurring procedural or academic issues. These are made publicly available to all staff and students.</p>	<p>The study has not started yet, and public availability of recurring issues cannot be proofed. "Not applicable" may be the best compliance judgement, although by analogy to the existing BSc. Studies one can expect the Compliance "YES".</p>
<p><i>Standard 1.5.</i> All staff and students comply with the internal regulations relating to ethical conduct in research, teaching, assessment in all academic and administrative activities.</p>	<p>It was not possible to properly proof the fulfilment of these requirements, not only because the study has not started yet, but also for not being able to visit the site physically. One had to rely mostly on the analysis material and discussions on the virtual meeting.</p>
<p><i>Standard 1.6.</i> All policies, regulations, terms of reference and statements of responsibility relating to the management and delivery of the program are reviewed at least once every two years and amended as required in the light of changing circumstances.</p>	<p>Certain Standard's requirements formulated as "available to all staff and students", "All staff and students comply..." and "All policies, regulations..." seem somewhat exaggerated and in practice hardly achievable. One could regard as most successful, if instead of the required "all", e.g. 90% would be satisfied in practice. The study has not started yet, and public availability of recurring issues cannot be expected. Anyhow, the plans comply to the standards and the realisation will have to be monitored as required. One can expect a high level of compliance, therefore "YES".</p>



Standard	Compliance*	
	Yes	No
<i>Standard 1.1.</i> The study programme mission is in compliance with the overall mission statement of the institution.		X
<i>Standard 1.2.</i> Relevant academic and professional advice is considered when defining the intended learning outcomes which are consistent with the National Qualifications Framework and the Framework for Qualifications of the European Higher Education Area.	X	
<i>Standard 1.3.</i> The study program has a well-defined overarching didactic and research concept.		X
<i>Standard 1.4.</i> There are formal policies, guidelines and regulations dealing with recurring procedural or academic issues. These are made publicly available to all staff and students.	X	
<i>Standard 1.5.</i> All staff and students comply with the internal regulations relating to ethical conduct in research, teaching, assessment in all academic and administrative activities.	X	
<i>Standard 1.6.</i> All policies, regulations, terms of reference and statements of responsibility relating to the management and delivery of the program are reviewed at least once every two years and amended as required in the light of changing circumstances.	X	

Compliance levels were defined with 4 discrete possible values:

- Fully compliant
- Substantially compliant
- Partially compliant
- Non-compliant

using the following guidelines, as required by the KAA Accreditation manual:

1.1. fully compliant – all the standards included in a particular general area are met. If the institution exceeds the standards and meets some of the performance indicators, commendations are appropriate. This recognition provides the institution motivation to pursue even greater levels of excellence in their quality management practices;

1.2. substantially compliant – 70 – 90% of the standards included in a particular general area are met, while the others are not yet in line with stated expectations. Also, there is potential for requirements of the standards not to be satisfied before the next review (examples may include the loss of key faculty members due to retirements, declining student enrolment, or projected reductions in financial or personnel resources, and others);



1.3. partially compliant - 30 – 60% of the standards included in a particular general area are met. Also, the institution lacks the strength of compliance with the standards to ensure that the quality of the institution will not be compromised;

1.4. non-compliant – less than 30% of the standards included in a particular general area are met. The institution does not satisfy the requirements of the standards.

With 4 “YES” and 2 “NO” in the above table measuring the **Mission, objectives and administration** the Compliance level would be $4/6 = 0.67$ or 67%, rounded off to **70%**, implying “**Substantially compliant**”.

ET recommendations:

- 1. Regarding the statement in Mission that the graduate programme is highly selective for students with a strong background in the social sciences, one could agree if they also have strong background in mathematics, statistics, and data bases. It is more probable that they have not but can learn it. The recommendation is to introduce for such students obligatory courses like Linear algebra, Statistics and Data Bases. For these students may be declared as elective some social or humanity-closer or specialised courses like Communication and Presentation Skills, IT, Law and Ethics, Digital Public Spheres, Artificial Intelligence in Business and Society, Geoinformatics, Network Approaches in Biology and Medicine, etc.*
- 2. Introduction of Master studies could be gradually transformed into a multitude of interdisciplinary elective courses, producing several different profiles of professionals, like already foreseen Geoinformatics, Medicine and Biology applications, then Management restructuring, Decision making, Optimization, Soft methods, etc. dynamically satisfying ever changing requirements on the labour market. It can be expected that under such conditions, some individuals and groups would excel in their research and become recognised in Europe and the world. MS and PhD theses can be defended aiming at real-world problems from the environment.*
- 3. Engagement of distinguished professionals from industry to teach part-time at FMEC can be beneficial for both sides.*
- 4. Including case studies from the experience in own projects for industry and/or society can be included in the courses syllabi.*
- 5. Papers featuring case studies from practice are well accepted in some renown journals.*



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2.2. Quality management

In Riinvest - *MSc Data Science and Business Analytics Final* report the Quality management is described to detail and features well organised and already for years in practice checked procedures, with full inclusion of stakeholders.

The faculty and the studies are permanently being adapted in order to follow novelties in the profession and to improve the quality of activities, which include: review of quality procedures, governance, teaching and research at the Institution, student admission, progression and graduation, staff selection, recruitment and development, student support services, physical infrastructure and equipment and dissemination of public information. Design and approval of programmes follow the best practices in the in European Higher Education Area. The institution undertakes regular periodic evaluations of programmes once every three years. It includes regulated self-evaluations. Care is taken about Human Resources, the premises and student services. Annual plans contain improvement plans.

Student surveys yield information about different aspects of the teachers' relevant activities. Collected and analysed data are declared to be publicly available, of course only for the already existing studies.

There is abundant information on the Riinvest web site regarding the quality control. An objection can be made that concrete and comprehensive results of individual evaluations are not directly visible to detail for public inspection. It is not the reviewer's requirement that it literally must be so. The privacy of the educators must be to some extent respected. Riinvest promotes its best achievers but does not publicly announce mediocre or poor results. That is correct, because otherwise some teachers might be prematurely compromised, even when they may significantly improve with gaining experience. It is here the question of discrepancy between the requirement by Standard 2.6 and the observed and generally elsewhere also present practice. The compliance in the underlying table for this standard is "NO", but it does not reflect the opinion that Riinvest's practice would not be correct. The reviewer's suggestion would be to modify the Standard 2.6, requiring instead that "the best achievers are publicly promoted".

Every three years a major evaluation of the whole activity, resulting outcomes and the labour market is performed. Regular internal and external audits cover all the activities of the institution. They also do not seem to be publicly visible.



Standard 2.3 has also rigid requirement formulated as “deal with **all** aspects”. Such formulations can hardly be fully satisfied.

In discussion with the Institution staff, the impression was that they are highly aware and supportive to maintain and improve the quality issues.

Standard	Compliance	
	Yes	No
<i>Standard 2.1.</i> All staff participate in self-evaluations and cooperate with reporting and improvement processes in their sphere of activity.	X	
<i>Standard 2.2.</i> Evaluation processes and planning for improvement are integrated into normal planning processes.	X	
<i>Standard 2.3.</i> Quality assurance processes deal with all aspects of program planning and delivery, including services and resources provided by other parts of the institution.		X
<i>Standard 2.4.</i> Quality evaluations provide an overview of quality issues for the overall program as well as of different components within it; the evaluations consider inputs, processes and outputs, with particular attention given to learning outcomes for students.	X	
<i>Standard 2.5.</i> Quality assurance processes ensure both that required standards are met and that there is continuing improvement in performance.	X	
<i>Standard 2.6.</i> Survey data is being collected from students, graduates and employers; the results of these evaluations are made publicly available.		X
<i>Standard 2.7.</i> Results of the internal quality assurance system are taken into account for further development of the study program. This includes evaluation results, investigation of the student workload, academic success and employment of graduates.	X	
<i>Standard 2.8.</i> The institution ensures that reports on the overall quality of the program are prepared periodically (e.g. every three years) for consideration within the institution indicating its strengths and weaknesses.	X	
<i>Standard 2.9.</i> The quality assurance arrangements for the program are themselves regularly evaluated and improved.	X	

Compliance level: $7/9 = 0.777 \approx 80\%$, Substantially compliant



ET recommendations:

1. *Make the results of evaluations fully visible, as required by the Standard 2.6., or, what is even better, modify the Standard's formulation of requirement.*
2. *After having begun with the educational process, design and periodically publish specific improvement plans interrelated with the survey results. The improvement plans should indicate the survey results, investigation of the student's workload, academic success, and employment of graduates.*
3. *When available, collect and publish periodically the results that represent survey data from employers of your alumni.*
4. *After having begun with the educational process, start collecting the evidence about adjustments made in plans for teaching, based on reports on the delivery of each study course.*
5. *After having started with the educational process, prepare periodically shorter internal self-assessment reports on the quality of the actual performance of the programme, for consideration of proposing modifications in syllabi, in sequence of courses, deliberations about introduction of new/elective courses and changing the status of courses between obligatory/elective.*
6. *Conduct a comprehensive reassessment of the programme, e.g. every five years. Policies and procedures for conducting this reassessment should be published, programme assessment should involve external stakeholders.*

2.3. Academic staff

Some members of the Institution's staff have excellent references regarding their education at prestigious institutions in the world, and practices in the developed countries. This can indicate compliance to the Standard 3.6 that "Opportunities are provided for additional professional development of teaching staff". On the other hand, there are a few staff members who are not fluent in English enough, so they have to rely on interpreters.

From the Riinvest - *MSc Data Science and Business Analytics Final* report it is not visible in which academic status are their educators. Parly it can be seen in their CVs. For the majority who hold PhD, it can be presumed that they are assistant professors, while the others could be lecturers. For Riinvest as a private institution, the formal academic status seems to be of lesser importance than on a state-owned institution. Their teaching workload is not specified and probably it cannot be precisely determined as the enrolment of students has not started yet. It



can be expected that they would be somewhat overloaded if admitting the education on other institutions. It is probably inevitable as long as a shortage of ICT qualified staff is present.

Being a private institution, the financial stimuli for the staff can be more efficiently managed than on the state-owned ones. Advantage is being taken of the allowed and stimulating Institution’s policy to engage in non-trivial projects for local needs.

The benefit arises from not being forced to unrequested research just for the sake of publishing. Due to the policy of the Institution’s owner, the stimulation has been well achieved and instead of fierce competition among the staff for limited promotion possibilities, the impression is that a pleasant co-operative atmosphere has been created and enforced.

Research addressing acute local professional and scientific real-life problems for the local community, brings to the Institution and researchers some additional money what can help in further advancement of the team, rise members’ satisfaction, and positive results increase respect in the local community. Scientific or professional papers (in the technical field the difference is questionable) can cover case studies from real-life, which are accepted also in some respectable journals. So, the research was performed to find a useful, in practice accepted and remunerated solution, while publishing is a by-product of this activity.

Engagement of the Institution’s staff in projects is not a loss of time or diversion from their basic tasks. It can be an additional attractive motivation to follow the market demand, acquire the relevant applicable knowledge and disseminate it among the students. The labour market might appreciate that and the demand for their students can further grow. On the other hand, the financial situation of the Institution’s staff can significantly improve and so their level of satisfaction and self-fulfilment. The visible result of such policies is that some high-quality staff members have returned to Kosovo from the best developed countries.

The Standard 3.8 requirements for evaluations and self-evaluations do not seem to be fully obeyed as publicly visible.

Standard	Compliance	
	Yes	No
<i>Standard 3.1.</i> Candidates for employment are provided with full position descriptions and conditions of employment. To be presented in tabular form data about full time (FT) and part time (PT) academic/ artistic staff, such as: name, qualification, academic title, duration of official (valid)		X



contract, workload for teaching, exams, consulting, administrative activities, research, etc. for the study program under evaluation.		
<i>Standard 3.2.</i> The teaching staff must comply with the legal requirements concerning the occupation of teaching positions included in the Administrative instruction on Accreditation.	X	
<i>Standard 3.3.</i> Academic staff do not cover, within an academic year, more than two teaching positions (one full-time, one part-time), regardless of the educational institution where they carry out their activity.		X
<i>Standard 3.4.</i> At least 50% of the academic staff in the study program are full time employees, and account for at least 50% of the classes of the study program.	X	
<i>Standard 3.5.</i> For each student group (defined by the statute of the institution) and for every 60 ECTS credits in the study program, the institution has employed at least one full time staff with PhD title or equivalent title in the case of artistic/applied science institutions.	X	
<i>Standard 3.6.</i> Opportunities are provided for additional professional development of teaching staff, with special assistance given to any who are facing difficulties.	X	
<i>Standard 3.7.</i> The responsibilities of all teaching staff, especially full-time, include the engagement in the academic community, availability for consultations with students and community service.	X	
<i>Standard 3.8.</i> Academic staff evaluation is conducted regularly at least through self-evaluation, students, peer and superiors' evaluations, and occur on a formal basis at least once each year. The results of the evaluation are made publicly available.		X
<i>Standard 3.9.</i> Strategies for quality enhancement include improving the teaching strategies and quality of learning materials.	X	
<i>Standard 3.10.</i> Teachers retired at age limit or for other reasons lose the status of full-time teachers and are considered part-time teachers.	X	

Compliance level: 7/10 = 70%, Substantially compliant

ET recommendations:

- 1. Try to increase the number of technically oriented teaching staff. This expert believes that it would guarantee safer perspective in the future.*
- 2. Further enforce scientific and professional co-operation with local industry, economy and other appreciated institutions and organisations.*



3. *Continue to support the Institution's staff initiatives to solve local challenging real-life problems and publish their achievements in relevant journals*
4. *Occasionally engage distinguished professionals from industry to provide invited lectures for the students and/or to be co-mentors for students' theses dealing with real-life problems from practice.*
5. *Keep trying to attract foreign students and guest professors and introduce an option to teach in English.*
6. *Encourage that all your teachers acquire some essential knowledge of the English language.*

2.4. Educational process content

General objection can be that narrative approach seems to be too strong in comparison to more exact approach and more weight should be given to statistics, programming and using software tools. The students may not know the exact mathematical foundations of multivariate statistics and reduction of dimensions procedures but must be familiar with basic statistics. Otherwise, it may happen that the students or alumni uncritically use results achieved by a software tool and come to wrong conclusions.

Hoping not to offend the colleagues from social sciences and humanities, STEM courses are generally perceived as more difficult and requiring more work to master. As ECTS points measure the time a STUDENT has to dedicate to master a syllabus, it would be closer to reality to assign the STEM courses higher ECTS number of points at the expense of dominantly social science and humanities related courses.

The Standard 4.3. is omitted in the Riinvest - MSc Data Science and Business Analytics Final report.

For Standard 4.4. Distribution of classes (Weekly schedules) for all the courses are missing. The Standard 4.5. is declared as "Non Applicable", what is accepted.

Standard	Compliance	
	Yes	No
<i>Standard 4.1.</i> The study program is modelled on qualification objectives. These include subject-related and interdisciplinary aspects as well as the acquisition of disciplinary, methodological and generic skills and competencies. The aspects refer especially to academic or artistic	X	



competencies, to the capability of taking up adequate employment, contributing to the civil society and of developing the students' personality.		
<i>Standard 4.2.</i> The study program complies with the National Qualifications Framework and the Framework for Qualifications of the European Higher Education Area. The individual components of the program are combined in a way to best achieve the specified qualification objectives and provide for adequate forms of teaching and learning.		X
<i>Standard 4.3.</i> The disciplines within the curriculum are provided in a logical flow and meet the definition and precise determination of the general and specific competencies, as well as the compatibility with the study programs and curricula delivered in the EHEA. To be listed at least 7 learning outcomes for the study program under evaluation.		X
<i>Standard 4.4.</i> The disciplines within the curriculum have analytical syllabuses which comprise at least the following: the discipline's objectives, the basic thematic content, learning outcomes, the distribution of classes, seminars and applicative activities, students' assessment system, the minimal bibliography, etc. The full course description/ syllabuses of each subject/ module should be attached only in electronic form to the self-assessment report for the study program under evaluation.		X
<i>Standard 4.5.</i> If the language of instruction is other than Albanian, actions are taken to ensure that language skills of both students and academic staff are adequate for instruction in that language when students begin their studies. This may be done through language training prior to the commencement of the program.	Non applicable	
<i>Standard 4.6.</i> The student-teacher relationship is a partnership in which each assumes the responsibility of reaching the learning outcomes. Learning outcomes are explained and discussed with students from the perspective of their relevance to the students' development.	X	
<i>Standard 4.7.</i> Teaching strategies are fit for the different types of learning outcomes programs are intended to develop. Strategies of teaching and assessment set out in program and course specifications are followed with flexibility to meet the needs of different groups of students.	X	
<i>Standard 4.8.</i> Student assessment mechanisms are conducted fairly and objectively, are appropriate for the different forms of learning sought and are clearly communicated to students at the beginning of courses.	X	
<i>Standard 4.9.</i> Appropriate, valid and reliable mechanisms are used for verifying standards of student achievement. The standard of work required for different grades is consistent over time, comparable in courses offered	X	



within a program, and in comparison with other study programs at highly regarded institutions.		
<i>Standard 4.10.</i> Policies and procedures include actions to be taken in to dealing with situations where standards of student achievement are inadequate or KAA inconsistently assessed.		X
<i>Standard 4.11.</i> If the study program includes practice stages, the intended student learning outcomes are clearly specified, and effective processes are followed to ensure that those learning outcomes and the strategies to develop that learning are understood by students. The practice stages are allocated ETCS credits and the work of the students at the practical training organisations is monitored through activity reports; students during practice stages have assigned tutors among the academic staff in the study program.	X	
<i>Standard 4.12.</i> In order to facilitate the practice stages, the higher education institution signs cooperation agreements, contracts or other documents with institutions/organisations/practical training units.	X	

Compliance = 7/11 = 64% ≈ 60%, Partially compliant

ET recommendations:

- Elective courses for students knowledgeable in social sciences and humanities, but who are lacking STEM background, could be:*
 - Statistics (descriptive statistics, combinatorics, probability, binary and normal distribution, correlation, tests, reduction of dimensions)*
 - Data bases (relational DB, normal forms, E-R modelling, SQL, maintenance issues)*
 - Selected topics from Mathematics: Linear algebra (determinants, vectors, matrices multiplication and inversion, eigenvalues), Numerical issues (precision in computer vs. accuracy)*
- Some of your teachers have excellent education background and impressive references. They appear also to be very skilled and eloquent, what is an important asset of Riinvest. However, it should be avoided that they gradually drift in their courses closer to social sciences and humanities. Such stuff can be more attractive to teach, likewise to students and to teachers. However, the problem is that hard STEM sciences are, and surely will be, in higher demand on the labour market. Larger number of workers are needed who can deliver material or software products and solutions, than those who can deliberate legal, etic or some philosophical issues.*



3. *Elective courses appropriate for students with STEM background, and lacking social sciences and humanities background:*

- *Communication and presentation skills*
- *IT, law and ethics*
- *Digital public spheres*

4. *Offer the students to choose between possibilities:*

- *Geoinformatics*
- or*
- *Network Approaches in Biology and Medicine*

under assumption that students interested in Geoinformatics are probably not interested in Biology and Medicine.

5. *Offer the students to choose learning foreign languages, none, one or both:*

- *English language*
- *German language*

6. *Once in the future consider introducing different elective courses so that the students can create their individual curricula according to the labour market demand.*

2.5. Students

Omitted as non-applicable.

2.6. Research

According to Riinvest - MSc Data Science and Business Analytics Final report, Data science research plan is part of the Riinvest College institutional research strategy. The main objectives of the strategy relate to establishing centres of research, stimulate the development of research and cluster activities to maximize opportunities for research groups to create appropriate critical mass, enhance and build relationships and partnerships with stakeholders in industry, academia and the public sector to increase combined research capacity and foster mechanisms of technology and knowledge multidirectional transfer, create an integrated research and studies quality assurance framework, compliant with international best practice, and strengthen the link between research and teaching.

The declared main research themes of the Data science programme are:



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- Ethics and Data Science
- Privacy and Data
- Computing Systems for Data-Intensive Applications
- Trustworthy Artificial Intelligence
- Machine Learning and Causal reasoning

All of these programmes are described in the mentioned report to more detail.

This expert's opinion is that Data privacy issues (GDPR) are in EU overly emphasised. There are some unproved allegations that the aim was to discourage Americans from activities on the EU Internet market. Many Internet users, while looking for something of interest, have faced the situation that a question pops up regarding accepting the web site owner's data privacy conditions, usually multiple pages of extremely boring text. Most users probably accept mostly without any check, and as result contra productively bring the users' data privacy in jeopardy.

RIINVEST declares research outcomes as is currently most encountered practice worldwide:

- Articles published in indexed journals
- Conference papers
- Proceedings
- Books

There are not mentioned criteria regarding the validation of such outcomes. Journals indexation can be of different values. Scientometrics is sometimes criticised as not appropriate for academic promotion. In the *Declaration on Research Assessment (DORA)*, <https://sfdora.org/> (accessed in December 2019), it is written:

“... Our recommendations therefore focus primarily on practices relating to research articles published in peer-reviewed journals but can and should be extended by recognizing additional products, such as datasets, as important research outputs. These recommendations are aimed at funding agencies, academic institutions, journals, organizations that supply metrics, and individual researchers.

A number of themes run through these recommendations:

- the need to eliminate the use of journal-based metrics, such as Journal Impact Factors, in funding, appointment, and promotion considerations;
- the need to assess research on its own merits rather than on the basis of the journal in which the research is published; and

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“the need to capitalize on the opportunities provided by online publication (such as relaxing unnecessary limits on the number of words, figures, and references in articles, and exploring new indicators of significance and impact).”

Allow a citation from:

Measuring research 'impact' for academic promotion: issues from the literature,
<https://pdfs.semanticscholar.org/8a6d/fff952e13a2802b105492c1f6466c966687f.pdf>
(accessed on November 6th, 2018):

“The practice of restricting the assessment and evaluation of academic performance to bibliometric indicators alone, so as to produce a supposedly objective measurement of the quality of an institution, a scholar, a journal or an article, is **flawed** and potentially **damaging** for the equity of academic reward and evaluation.”

Very often a fee is required in order to publish a paper. Conference fees are required as a rule.

Among valuable research outcomes should be included also new products, new software, and patents, which may be even more valuable than publications.

In discussion with Riinvest teaching staff, it was noticed that their primary goal is to offer something useful to humans as direct users.

If solutions required in industry and society are the main motivator for research, the result may be a benefit for industry and society, but also to the Institution and its researchers. They do something useful, earn money for the Institution and themselves, acquire practical knowledge useful to their students, gain respect in the local community. All these can be regarded as advantageous, compared with research of self-imposed topics, paying to publish the results, and enjoying little feedback from the usually very few readers.

Some Compliance estimations were expectations, on the analogy with existing studies.

Standard	Compliance	
	Yes	No
<i>Standard 6.1.</i> The study program has defined scientific/applied research objectives (on its own or as part of a research centre or interdisciplinary program), which are also reflected in the research development plan of the institution; sufficient financial, logistic and human resources are allocated for achieving the proposed research objectives.		X
<i>Standard 6.2.</i> Expectations for teaching staff involvement in research and scholarly activities are clearly specified, and performance in relation to these expectations is considered in staff evaluation and promotion criteria.	X	



<i>Standard 6.3.</i> Clear policies are established for defining what is recognized as research, consistent with international standards and established norms in the field of study of the program.	X	
<i>Standard 6.4.</i> The academic staff has a proven track record of research results on the same topics as their teaching activity.	X	
<i>Standard 6.5.</i> The academic and research staff publish their work in speciality magazines or publishing houses, scientific/applied/artistic products are presented at conferences, sessions, symposiums, seminars etc. and contracts, expertise, consultancy, conventions, etc. are provided to partners inside the country and/or abroad.	X	
<i>Standard 6.6.</i> Research is validated through: scientific and applied research publications, artistic products, technological transfer through consultancy centres, scientific parks and other structures for validation.		X
<i>Standard 6.7.</i> Each academic staff member and researcher has produced at least an average of one scientific/applied research publication or artistic outcome/product per year for the past three years.		X
<i>Standard 6.8.</i> Academic and research staff publish under the name of the institution in Kosovo they are affiliated to as full time staff.		X
<i>Standard 6.9/6.8.</i> Academic staff are encouraged to include in their teaching information about their research and scholarly activities that are relevant to courses they teach, together with other significant research developments in the field.	X	
<i>Standard 6.10.</i> Policies are established for ownership of intellectual property and clear procedures set out for commercialization of ideas developed by staff and students.		X
<i>Standard 6.11.</i> Students are engaged in research projects and other activities.	X	

Compliance level: $6/11 = 0.545 \approx 54\%$, Partially compliant

ET recommendations:

1. *Include results from real-life research and development projects as a measure of quality of individual's research.*
2. *Try to publish real-life case studies and include them in syllabi.*
3. *Use the educators' papers written in English as additional teaching material and literature.*
4. *Include your best students in real-life projects.*



5. *Research should provide hints for permanent adaptations and improvements of the curriculum in order to adequately follow the pace of progress and requirements of the labour market.*
6. *Enforce the international co-operation on mutually useful projects, as much as the conditions allow.*

2.7. Infrastructure and resources

Unfortunately, it was not possible to observe the Faculty premises in situ, but according to the presented video, they are excellent. A video is featuring excellently equipped library premises, but cannot give the answers to all the standards' requirements.

Ownership questions are probably not an issue, as were not mentioned in materials, but cannot be taken for granted without evidence.

Having in mind intrinsic economic instabilities and unexpected problems on the global level, like the current COVID-19 pandemic, nobody can guarantee the Standard's requirement to know what might happen in three years from now. One can suppose that the requests in 7.5. cannot be satisfied to each detail. Literature in domestic language, access to some databases and some software licences usually are lacking but it should not represent a real problem. Students in this field are expected to be or to become rather fluent in English and capable for reading professional literature.

Standard	Compliance	
	Yes	No
<i>Standard 7.1.</i> The adequate long-term implementation of the study program is ensured in quantitative terms as regards premises, human resources and equipment. At the same time, it is guaranteed that qualitative aspects are also taken into account.	X	
<i>Standard 7.2.</i> There is a financial plan at the level of the study program that would demonstrate the sustainability of the study program for the next minimum three years.	X	
<i>Standard 7.3.</i> The higher education institution must demonstrate with adequate documents (property deeds, lease contracts, inventories, invoices etc.) that, for the study program submitted for evaluation it possesses the following, for the next at least three years:		X



<p>a) owned or rented spaces adequate for the educational process;</p> <p>b) owned or rented laboratories, with the adequate equipment for all the compulsory disciplines within the curriculum, wherever the analytical syllabus includes such activities;</p> <p>c) adequate software for the disciplines of study included in the curriculum, with utilisation licence;</p> <p>d) library equipped with reading rooms, group work rooms and its own book stock according to the disciplines included in the curricula.</p>		
<p><i>Standard 7.4.</i> The number of seats in the lecture rooms, seminar rooms and laboratories must be related to the study groups' size (series, groups, subgroups); the applicative activities for the speciality disciplines included in the curricula are carried out in laboratories equipped with IT equipment.</p>	X	
<p><i>Standard 7.5.</i> The education institution's libraries must ensure, for each of the study programs:</p> <p>a) a number of seats in the reading rooms corresponding to at least 10% of the total number of students in the study program;</p> <p>b) a number of seats in the group work rooms corresponding to at least 10% of the total number of students in the study program;</p> <p>c) their own book stock from Albanian and foreign speciality literature, enough to cover the disciplines within the curricula, out of which at least 50% should represent book titles or speciality courses of recognised publishers, from the last 10 years;</p> <p>d) a book stock within its own library with a sufficient number of books so as to cover the needs of all students in the cycle and year of study the respective discipline is provided for;</p> <p>e) a sufficient number of subscriptions to Albanian and foreign publications and periodicals, according to the stated mission.</p>		X
<p><i>Standard 7.6.</i> The infrastructure and facilities dedicated to the implementation of the program is adapted to students with special needs.</p>	X	

Compliance = 4/6 = 67% ≈ 70%, Substantially compliant

ET recommendations:

1. *As the declared number of students per lecture and seminar is between 15-25 students, it would be advisable to start the programme with enrolling not more than 75 students, implying certain educations in 3 groups. Every new programme needs polishing and*



corrections. The teachers also have to invest effort and gain experience to deliver lectures at their best. This all is much easier if the number of students is small. After positive evaluations are positive, the number could be increased.

- 2. Probable missing literature in Albanian should not be regarded as a serious problem. It can happen that while a textbook in dynamic field is being translated, it becomes obsolete. Nowadays, practically every professional in Computing must be fluent in English and able to work in international environment. If necessary, provide additional courses in English.*
- 3. Try to attract foreign students by holding some lectures in English. Some of your students would probably eagerly attend lectures in English. However, mother tongue should never be neglected, regardless of seemingly rational advantages of using only English.*

3. OVERALL EVALUATION AND RECOMMENDATION OF THE ET

Due to the COVID-19 pandemic physical presence at the Faculty was not possible. We had to rely more on written materials and meetings via video link.

Some recommendations in each of the chapters are given. The impression is globally positive. If you continue keeping the motivation high and by attracting the best student population and by promoting co-operation with local industry but also with institutions and companies abroad, using possibility to work abroad on-line, the study has favourable perspective.

International co-operation, schooling and working abroad are very useful and usually attractive, so that our most important recommendation would be to motivate your quality staff and students who go abroad, to plan returning to their homeland and making it every day more prosperous.



Standard	Compliance level
1. Mission, objectives and administration	Substantially compliant
2. Quality management	Substantially compliant
3. Academic staff	Substantially compliant
4. Educational process content	Partially compliant
5. Students	Not applicable
6. Research	Partially compliant
7. Infrastructure and resources	Substantially compliant
Overall compliance	Substantially compliant

According to the KAA Accreditation manual, in order to be granted a positive decision for program re/accreditation, every education provider has to demonstrate at least a **substantial compliance** level in the overall judgment. Therefore, failure in meeting at least an overall substantial compliance level entails delaying, withdrawing, suspending or denying accreditation.

In conclusion, in line with the Manual requirements, the Expert Team recommends **to accredit** the program.

In conclusion, the Expert Team considers that the study programme **MSc. in Data Science and Business Analytics** offered by **Riinvest** is *Substantially compliant*, with the standards included in the *KAA Accreditation manual* and, therefore, recommends *to accredit* the study programme for a duration of **3 years** with a number of **75** students per year to be enrolled in the programme.

Expert Team

Chair

Professor emeritus Damir Kalpić, PhD

8 May 2021

(Signature)

(Print Name)

(Date)