



Republika e Kosovës
Republika Kosova - Republic of Kosovo
Agjencia e Kosovës për Akreditim
Agencija Kosova za Akreditaciju
Kosovo Accreditation Agency



PBHE “Universum International College”

Data Science and Analytics
Master of Science

Re-accreditation

REPORT OF THE EXPERT TEAM

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1. INTRODUCTION

1.1. Context

Date of site visit:

Expert Team (ET) members:

- *Dr. Anastasios Dagiuklas*
- *Dr. Peeter Normak*
- *Dr. Seifedine Kadry*
- *PhD Cand. Damian Michalik, Student Expert*

Coordinators from Kosovo Accreditation Agency (KAA):

- *Ilirjana Ademaj-Ahmeti, Senior Officer for Evaluation and Monitoring*

Sources of information for the Report:

- *Accreditation Manual*
- *The Manual for External Evaluation of Higher Education Institutions*
- *Self-evaluation Report*
- *Syllabi of the courses*
- *CV-s of the academic staff*
- *Licence agreement between the Arizona Board of Regents and Universum College*
- *Student Handbook for 2021-2022*
- *Accessibility and Inclusiveness Rules and Regulations*
- *Policy on Anti-discrimination for Academic and Administrative Staff*
- *Childcare Services Agreement Between Universum College and the Finnish School of Kosovo*
- *Smoke-free Policy*
- *Policy Handbook on Health Support Center & First Aid*
- *Policy on Anti-discrimination of Students*
- *Gender Equality Plan 2022-2027*
- *Access to Universum College Sport Facilities*

Criteria used for institutional and program evaluations

- *Accreditation Manual*

1.2. Site visit schedule

Time	Meeting	Participants
09:00 – 09:50	Meeting with the management of the faculty where the programme is integrated	Alejtin Berisha Shqipe Gerguri Rashiti Stephen Keck Isabel Salvat Jenny Orlova (Online)
09.50 – 10.35	Meeting with quality assurance representatives and administrative staff	Uran Rraci Donjeta Pllana Nazim Haliti Uresa Vllasa
10:40 – 11:40	Meeting with the heads of the study programme	Ramadan Dervishi Arianit Krypa Nysret Demaku
11:40 – 12:40	Lunch break	
12:40 – 13.10	Visiting Facilities	
13:10 – 13:55	Meeting with teaching staff	Ilir Berisha Reshat Selmani Qendrim Hyka Kimete Bilalli Valmir Sinani Arlinda Berisha Martin Cunningham Filip Ruxho
14:00 – 14:45	Meeting with students	Eshref Shala Kujtim Gjokaj Blerton Hoti Alban Krasniqi Melos Buçinca
14:50 – 15:35	Meeting with graduates	Shkodran Hasani Petrir Elshani Albion Burrniku Elita Rexha Mehreme Gashi Faton Nuha
15:40 – 16:25	Meeting with employers of graduates and external stakeholders	STIKK - Vjollca Çavolli TIVE - Albin Bushi Linkplus - Iliriana Ibraj Kidsday - Getoar Krasniqi Tensor LLC – Gezim Hapciu Crea CO – Avni Ternava
16:25 – 16:30	Internal meeting of KAA staff and experts	
16:30 – 16:35	Closing meeting with the management of the faculty and program	

1.3. A brief overview of the institution under evaluation

Universum International College is a private institution established in 2005 with three campuses in Prishtina, Ferizaj, and Gjakova. It offers a broad range of academic fields, with 13 bachelor's and 3 master's study programs. These range from traditional subjects such as English and Political Science to locally demanded areas of study like Dentistry and Fashion Design.

Universum International College thrives on providing high-quality, accessible and affordable educational opportunities to Kosovars and international students through teaching excellence, life-long learning, applied research and partnership building, attempting to form the students to be thoughtful, responsible and successful. In 2023, the College formed a strategic partnership with Arizona State University, becoming part of the Cintana Alliance. This membership allows exchange opportunities for both students and academy staff across the alliance's institutes. Certain study programs even offer the chance to earn double degrees in collaboration with foreign universities.

Management of the College is overseen by the Board of Trustees, who are in charge of developing and implementing the overall strategy. In terms of academic affairs, decisions are controlled by the Academic Council, who is responsible for delivering and implementing academic policies and controlling performances, among several other roles. High-ranking executive positions within the College consist of the President, Executive Vice-President, Vice-President, Rector, Vice-President for Operations, and Branch Manager. Since the start of 2024, the College has been segmented into three faculties.

The Data Science and Analytics MSc study program was accredited in 2021 for three years and was confirmed as being substantially compliant with the standards, with a number of 75 students to be enrolled in the program.

At the completion of the program, students are expected to achieve the following aims and learning outcomes:

- Providing students with the technical and analytical skills required for acquiring, managing, analysing and extracting knowledge from heterogeneous data sources. Critical skills will be developed that aid students in making decisions on the appropriate data analysis pipeline. Students will be able to collect requirements, design, implement and evaluate a data science solution.
- Providing students with data engineering and machine learning skills to design and implement scalable, reliable and maintainable solutions for data-oriented problems.
- Enabling students to develop data programming skills for multiple business domains and possible challenges (Big Data, Streaming Data, Noisy Data, etc.).
- Enabling students to assess and provide solutions for the privacy and ethical issues that arise at the application of data science methods to many real-world problems.

- In collaboration with instructors from the industry, the student will be aware of the challenges that a professional comes across when moving from theory to practice and know how to overcome these challenges.
- Giving the opportunity to the student to work in real world problems with real data in collaboration with industrial partners. Students will gain hands-on experience with the state-of-the-art data science technologies like Deep and Reinforcement learning.
- Preparing students to pursue a PhD in data science or to any other field where data science skills are required (e.g. bioinformatics, computational social science, data driven journalism, etc.)
- Providing students with a strong sense of social commitment, global vision and independent self-learning ability.

The learning outcomes are much more elaborated and adequate compared to the learning outcomes of 2021.

2. PROGRAM EVALUATION

2.1. Mission, Objectives and Administration

The mission of the College is “to support our students to become good citizens, successful & broad-minded leaders and thrive in the Revolution 4.0, the digital and globalised era. We do this by providing one-on-one academic & life coaching, putting our students and learning at the centre in an innovative, digitally enhanced environment that fosters creativity, inquiry, teamwork, innovation and entrepreneurial mindsets. Our commitment with quality, teacher excellence and applied research builds the bases for a strong and vigorous nation and region.”

The mission is built upon the following strategic pillars:

- I. Student and Learning at the Center
- II. Quality Improvement
- III. Innovation and Entrepreneurship
- IV. Digital Transformation
- V. Internationalisation

Therefore, the mission does not specify any study fields. And although the meaning of Revolution 4.0 is not clear (it probably means Industrial Revolution 4.0 or industry 4.0 instead of more recent Industrial Revolution 5.0), the study program should be considered as being consistent with the overall mission statement of the college.

Even though the higher institution representatives follow the mission statements, there are no specific KPIs assigned to specified strategic pillars. Quantitative-based indicators assist in sustainable growth of the College and reveal its strengths and weaknesses.

The expected learning outcomes are developed in cooperation with Arizona State University (ASU) and are adequate. Even circa 60% of courses are aligned to the corresponding study program available in ASU. They are consistent with the National Qualifications Framework and the Framework for Qualifications of the European Higher Education Area.

The study program has an applied research focus: students have opportunities to be engaged in research projects, current research findings are included in course materials, and an emphasis is put on the development of research skills. Student centricity and market orientation were stated as the overarching principle, and the practice and experience of ASU is taken as an example.

The experts were provided only with the *Staff Manual* and *Code of Ethics* (both in Albanian) as documents describing the formal policies, guidelines and regulations; there may have been also some more, but only in Albanian. The experts were also not able to find English translations of the necessary documents – *Statute of the College*, *Development Plan*, *Studies Regulation*, etc. – on the website of the College. For a higher education institution with the word “international” in its name, such a small number of documents in English was somewhat unexpected. On a request of the ET, English summaries of some documents were provided however documents should be publicly available.

The formulation of the standard “All staff and students comply with the internal regulations relating to ethical conduct in research, teaching, assessment in all academic and administrative activities” was transferred into the SER, with no evidence or even explanation. However, the College has adopted a Code of Conduct which also contains articles *Ethical and Professional Responsibilities of Academic Staff* and *Ethical Obligations and Conduct of Students*.

Some of the documents presented to the experts were from 2013, one even from 2009. For example, RREGULLORE PËR TRANSFERIMIN E STUDENTËVE NGA BARTËSIT E TJERË TË ARSIMIT TË LARTË TË AKREDITUAR. Several other documents were older than 5 years. For example, a document that fixed some tariffs was implemented in 2016. Some documents did not have the date of confirmation at all. All these documents had naturally the name *Universum College* as the name of the College. Even though there is a tension to adjust documents to the Cintana Alliance, it is still expected to implement transparent procedures of revising documents.

Compliance level: Substantially compliant

ET recommendations:

1. *Establish Key Performance Indicators which will assist in guiding the growth and regularly track the progressive evolution of the College.*

2. *The most important college regulations should be translated into English and made publicly available through the College website.*
3. *Revise the official documents of the College, updating, among other, also the name of the College. Moreover, implement a transparent procedure of updating documents.*

2.2. Quality Management

The quality system of the College is exposed in the *Guidelines for Quality Assurance at Uni – Universum International College*. Separate chapters are on academic matters, on domestic and international cooperation, and on student operations and services. Each chapter is divided into two-level subchapters. For example, 3.1. *Internal evaluation of the program* and 3.1.1. *Implementation of recommendations from KAA accreditation reports*. The College has also implemented a peer-to-peer evaluation for academic staff where academic staff share experience between themselves.

The College has implemented regular quality assurance instruments; some are adopted from ASU. These instruments include: students satisfaction surveys, focus group reviews, evaluations of academic staff, alumni surveys, exit surveys, training of academic staff, etc. The results of students' surveys are analyzed and discussed in relevant departments.

According to the Guidelines for Quality Assurance, program evaluation relies on the following data: student retention rate, graduation rate, student satisfaction rate, student withdrawal rate, pass rate of students.

While there are instruments in place for quality assurance of courses, there is no continuous and consistent quality system implemented for the whole study program. No person is assigned the responsibility for the quality of the study program. A group of staff called "Head of the study program" is formed, but personal responsibilities for heads of study programs are not stated (although responsibilities should be personal, not collegial). No program committee or council of the study program is formed that would include representatives of all major stakeholders (professors, students, graduates, employers, professional unions etc).

The fact that the Self-Evaluation Report and other documents provided to the experts did not contain almost no information that would allow experts to make evidence-based assessment about quality processes at the College indicates that not all quality assurance processes – this case composing an adequate and comprehensive self-evaluation report – are conducted on a satisfactory level.

Student survey data is collected at the end of each semester. Additionally, focus groups of students are formed to discuss various issues. To assess the employability of its graduates, the college conducts regular online surveys every semester. According to the recommendations of the 2021 Accreditation Report, a *Graduate Exit Survey* is developed about graduates' overall satisfaction with their academic experience, student services and their readiness for the job

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market. Another survey is for employers to assess graduate readiness (what skills graduates have, what skills they can easily learn, what skills they are lacking, and about the study programs). However, the results of these assessments are available on the College intranet and not on a public website, despite the recommendations of the 2021 Accreditation Report.

Students confirmed that their recommendations on the content of courses and even in introducing new topics was considered and sometimes taken into account. On the other hand, they – and also graduates and employers of graduates – proposed a number of improvements during discussions with the experts. This means that the feedback system from students, graduates and employers has room for improvement. Some concrete examples of suggestions of students, graduates and employers:

- electives should be possible also in semesters 1 to 3;
- there should be more extracurricular professional activities like boot camps or hackathons;
- more real-life examples and case analyses;
- more practical usage of hand-on tools;
- in the subjects, deal more various tools and methodologies used in companies;
- pay more attention to developing students' soft skills;
- invite more top experts from the industry to discuss latest achievements.

Academic Program Internal reports are conducted every year. External reviews are conducted according to the schedule of the accreditation conducted by KAA (the last accreditation was conducted in May 2021).

The Guidelines for Quality Assurance was revised in 2023.

Compliance level: Substantially compliant

ET recommendations:

1. *Nominate **one** academic member of the Faculty as a responsible head/curator of the study program who has the full responsibility on the quality of the study program.*
2. *Determine authority and responsibilities of the curator explicitly in the university regulations.*
3. *Form a permanent council of the study program that includes representatives of employers, partners, students, graduates, and some key academic staff, including other heads of the study program. The council will propose recommendations for further improvements of the study program based on surveys of all stakeholders, international development trends of the academic area, and society's needs.*
4. *Develop and implement mechanisms that ensure the quality of the documents of the College, including self-evaluation reports of study programs.*

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2.3. Academic Staff

At Universum International College, the academic and administrative staff are highly valued. The institution is committed to offering quality and modern services to its students, which begins with the staff's recruitment process. The aim is to employ qualified, experienced, and well-known professionals in their respective fields. Junior staff members are also given opportunities for personal and professional advancement. To achieve these goals, Universum International College has set internal regulations outlining the criteria and procedures for selecting academic and administrative staff. The college ensures its recruitment process fully complies with local labor laws. The student-to-staff ratio at Universum International College is approximately 17:1, consistent with other international institutions. When considering the need for new academic staff, the college strives to keep this ratio as low as possible. Universum International College follows a transparent process for staff recruitment using multiple channels like job portals, social networking sites, newsletters, and the college website. The department recognizes the need for new academic staff. It sends a request to the Academic Council, which is then forwarded to the President of UNI to confirm the availability of funds to support the hiring. Once the President confirms the availability of funds, the call for applications is opened, and the application form specifies the required qualifications for the open position. The college tries to define the necessary qualifications, experience, and expertise related to the position to recruit the most suitable candidate. This process ensures equal treatment of all applicants interested in the open position. Candidates are provided with a complete job description and specific KPIs to ensure they are fully aware of their responsibilities. Furthermore, each responsibility and the KPIs are discussed with the candidate before signing the contract. Senior positions within the institution need approval from ASU/Cintana as well, where, in addition to valuable feedback, representatives from ASU/Cintana also are interviewers.

The academic staff at Universum International College meets all the legal requirements of the professional positions included in the Administrative Regulations for Accreditation.

The head of quality holds two full-time positions; hence, the standard 3.3 is not compliant. Additionally, some faculty members are affiliated with different universities in different countries, such as E. C. and N. D.

Based on the table provided in the SSR, less than 50% of the academic staff in the study program are full-time employees; hence, standard 3.4 is not compliant.

The MSc. in Data Science Program has 120 ECTS and meets KAA's Administrative Instructions. All teaching staff must allocate work hours for exams, consultations, administrative tasks, and research based on UNI policies. The relationship with the industry is

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strong, and guest lecturers from the industry are invited. Co-lecturing with ASU will happen in Spring 2024. Universum International College is a leading institution in Kosovo that offers student and staff exchanges with international universities through the Erasmus+ program. 539 professors participated in the staff exchange program, and the college has 221 bilateral agreements. The staff exchange grant has increased, and UNI plans to send 437 staff members to training and workshops organized by EU partners in the upcoming period. The ASU-Cintana partner institutions offer faculty members an MSc. in Data Science program. The program allows them to teach and conduct research at any of the partner institutions for a semester or two, giving them international experience and opportunities. Priority is given to inexperienced staff who need support. Current projects aim to enhance teaching quality by applying innovative methodologies through ERASMUS + K2.

Compliance level: Substantially compliant

ET recommendations:

- 1. We recommend having at least one full professor/associate professor to enrich the learning and the research environment.*
- 2. Ensure that there is collaboration between the scientific and professional community, local industry, the economy, and other reputable institutions and organizations.*
- 3. Encourage the Faculty staff to tackle local real-life problems and publish their accomplishments in relevant journals as case studies while employed at Universum.*
- 4. Occasionally, invite distinguished professionals from industry to give lectures to students and/or co-mentor students' theses that deal with real-life problems in practice.*

2.4. Educational Process Content

The MSc in Data Science and Analytics at Universum International College is a graduate program designed to align with the evolving dynamics of the digital era, particularly with the significant advancements in Artificial Intelligence lately. Comprising 120 ECTS, this intensive two-year program requires students to undertake at least 60 ECTS annually. A distinctive feature of this program is its articulation with Arizona State University's (ASU) MSE in Software Engineering. This collaboration offers students a unique pathway, where after completing their first year, including 60 ECTS with a focus on foundational and bridge courses, they are allowed to transfer to ASU for their second year. Students have the option to transfer to ASU and take courses physically or online. These courses, totaling 24 ECTS, are designed to prepare students for the complexities of software engineering, ensuring a seamless integration into ASU's graduate program. This strategic articulation underscores the program's

commitment to providing a global perspective and versatile skill set, equipping students to thrive in the fast-paced technological landscape.

The curriculum is designed on the qualification objectives, and the different topics across the courses are contributing to the civil society and the development of students' personality.

The study program complies with the EQF, but some components are missing as the below observations:

Based on the textual course descriptions, below are observations regarding the curriculum:

- The course Data Science for Economics needs revision, as the current syllabus focuses on data exploration and barely touches the economic aspects.
- No syllabus was found for the Distributed System course.
- Data privacy and ethics needed to reduce its ECTS and add another course that covers the missing topics in the curriculum, such as Time Series Analysis, Forecasting, and Data visualization.
- The internship course must be taken before the thesis; for example, in semester 3, the internship can be offered, and the thesis in semester 4.
- The prerequisites for the courses are missing. The prerequisites need to be revised. The program must have a critical path of the curriculum.
- The internship and thesis syllabus must be developed, and their outcomes must be clear.
- As the R language is the second important language after Python for data science, we suggest to add R language as a component/topic to the curriculum.

The study program identifies 7 learning outcomes that are logically related and meet the definition and precise determination of the general and specific competencies.

The college's student and teacher relationship seems to be very good. The staff of the College emphasized its student-centered approach several times in interviews. Students also noted the helpfulness of the lecturers and the promptness in answering questions.

The teaching strategies fit the different types of learning outcomes programs are intended to develop, and student assessment mechanisms are conducted fairly and objectively.

Rules for revising grades occupy a separate section in the Student Handbook. Another section presents the College's appeals policy.

The study program developed an appropriate mechanism for verifying the standard of student achievement. Policy and procedure are provided to deal with situations where standards of student achievement are inadequate.

The study program has a practice stage, i.e. the internship course, but it doesn't have a syllabus.

Compliance level: Substantially compliant

ET recommendations:

1. *Some recommendations regarding single courses are provided before this table.*
2. *If students with a weak background in prerequisite applied mathematics and statistics are enrolled, it could lead to student retention problems. Limiting enrolment to candidates with a degree in Statistics, Applied Mathematics, computing, and engineering is advisable. Other students may find it difficult to keep up with the current program, which could potentially damage the reputation of the Study and of Universum. Remedial courses for one semester might be added to the MS program for students with backgrounds different from the previous majors.*
3. *As data science is heavily based on Statistics, we recommend adding one or two standalone statistics courses, Statistics 1 and Statistics 2.*

2.5. Students

General principles of admission are stated in the *Statute* of the college and the general procedures are stated in the *Regulation of Undergraduate Studies*. Admission to the studies is done on the basis of a public call and admission criteria and procedures for new students will be applied to all students regardless of their background.

Students enrolled must submit a birth certificate, high school diploma and transcript of records and Matura test certificate. Those who have completed their education outside of the Republic of Kosovo should submit legalized documents issued by the Ministry of Education, Science and Technology of the Republic of Kosovo. Applicants should also complete the application procedures at the College and sign a contract of the study program if they meet eligibility criteria.

During the site-visit 3 computer laboratory rooms were presented to the RT, each having 15-20 computerised work-places. In the rooms is also enough space for those who will use their own personal laptop computer. The students said that normally there are not more than 15 students in the laboratory.

Concerning feedback to students, the college follows the *FIDeLity Feedback* principles, where the feedback needs to be given frequently, immediately, in a discriminating and loving way. According to graduates, the HEI representatives implement all important matters pointed out by students.

The results obtained by the students can be accessed through the DMIS information system or Moodle learning management system. Grading is done electronically for each course and a transcript of records can be generated at any time.

According to the SER, examinations can be held individually upon the request of students (respecting their work schedule), as well as any other request inquired by a formal request by students is well considered.

The College uses a DMIS information system that stores and processes comprehensive academic information: student background data and personal information, grades, financial reports and passing/failure rate per courses. Students can check their scores, grades, and financial statuses online. They also can reject, accept, or request clarification about their scores.

The college uses an integrated software *Platforma Akademia* which checks the plagiarism and authenticity of the work submitted. It also prevents multiple submissions of the same or similar texts. Use in the submission of assignments and research papers is mandatory for all staff and students.

The students are informed about their rights, resources and facilities as well as their obligations and issues of non-academic conduct already on the orientation day. The rights and regulations are stated in the *Statute* of the College as well as in the *Student Handbook* which are publicly available documents. Obligations are also provided under the contract which the student signs upon enrolment in the College. The procedure for possible appeals is also described in the *Student Handbook*. All students' rights and obligations are made publicly available.

The students' transfer is regulated in the *Regulations for the Transfer of Students from Other Accredited Higher Education Providers*. A transfer of students from another higher educational institution is enabled only if a previous academic program is relevant, includes courses of similar nature and the relevant courses are acknowledged by the respective academic staff. Transfer candidates to other institutions must spend at least one academic year at the College prior to their graduation.

The College is well known in Kosovo for its extensive involvement in the Erasmus Plus project. Students express satisfaction with not only the services provided, but also the wide range of partners associated with the HEI. Overall, the institution enables students to actively engage in international higher education, thereby fueling their academic growth.

While meeting with students, they did not complain about the availability and guidance of the academic staff. On the contrary, lecturers mentioned at the meeting that they spend more time on student guidance than is customary in universities.

Moreover, students and graduates noticed that there is still room for improvement in terms of start-up incubation and additional lectures or materials based on cutting-edge solutions like AI. This interest might be profitable for many study programmes, so it is recommended to further expand learning support mechanisms.

Compliance level: Fully compliant

ET recommendations:

1. *Further expansion of support mechanisms offered by the College, i.a. start-up incubators and additional activities for cutting edge solutions.*

2.6. Research

Universum is a teaching focus university, but they have developed a research plan/policy that aligns with the institution's mission and the requirements of the Kosovo Accreditation Agency. The institution has set long-term goals for research, which are pursued collectively with faculty, students, staff members, and industry partners. Applied research helps UNI understand the socioeconomic circumstances of the country and the region.

To validate the applied research publications and technological transfer, UNI is developing a Research and Innovation Hub, financed through an Erasmus project in the field of Capacity Building for Higher Education. The Research and Innovation Hub is being developed with the help of our international partners: Hamburg University of Technology, Politecnico de Milano University and Aalborg University.

UNI mandates academic directors and all teaching staff to engage in research through contractual agreements and job descriptions.

In its efforts to offer research-led and research-informed teaching, Universum participates in CBHE projects in partnership with public and private HEIs and other education-related institutions and organizations across Europe and beyond.

As part of the strategic partnership with ASU, UNI faculty can be part of the Communities of Practice initiative. Communities of Practice serve as dynamic platforms for faculty and staff across the ASU Cintana Alliance Institutions to collaborate, generate innovative ideas regarding research, and identify areas of opportunity to enhance and implement within their respective institutions. These online communities foster interaction and engagement among members through social networks and web-based portals, enabling effective knowledge-sharing and collective problem-solving.

The statements made by Universum above provide a solid foundation for future endeavors. The extensive collaboration already established both overseas and in Kosovo serves as evidence that the strategy being implemented is practical and efficient.

It is possible to anticipate more publications in the future. However, it is crucial to uphold the principle that the main objective of research should always be the production of concrete and relevant findings, with publications being a secondary outcome rather than the sole goal of the research. We recommend the publication of the outcome of the MS theses.

Based on the CVs provided and the online profile of the faculty members, not 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. Some of the academic and research staff do not publish under the name of UNI which they are affiliated to as full-time staff. Some full-time staff are active in research but the majority are not. Not all the academic staff has a proven track record of research results on the same topics as their teaching activity.

In response to the request of the ET to provide documents regulating the ownership of intellectual property and procedures on the commercialization of ideas developed by staff and students, two documents were submitted: 1) Policy Handbook of Data Protection Policy and 2) Technology Policy. None of these documents mention anything about the commercialization of ideas developed by staff and students. Regarding intellectual property, the Technology Policy contains only three sentences of general type like “that users may not violate any copyright, patent or other intellectual property law, including restricted software laws”. Again, the recommendation of the 2021 Accreditation Report “Define procedures for the commercialization of ideas developed by staff and students (Intellectual Property Policy)” has not been implemented.

Students' research activities take place primarily as part of the preparation of their thesis, where students demonstrate the practical application of knowledge and skills in a real-world setting.

Compliance level: Partially compliant

ET recommendations:

1. *Make sure that all the full time employed academic staff publishes under the name of the Universum.*
2. *Maintain the effective strategy of collaborating with global counterparts, including colleagues from other institutions and the international community. Ensure that research is conducted in cooperation with these partners, and carefully track the results, achievements, and influence of such research.*
3. *It is recommended that scientific sessions be organized, involving teaching staff, researchers, students, and graduates.*
4. *It is recommended that the contribution of staff towards attracting financial resources through applied projects and products be monitored and supported. Additionally, the capacity of staff members to generate financial returns should be included in the individual performance review system.*

2.7. Infrastructure and Resources

Universum International College invests in its capacities and facilities to create a good learning and living experience. The Msc in Data Science program has active learning classrooms with built-in information technology and inviting nooks for individual or group study sessions. UNI continues to invest in the building and the design education it promises. The Board of Trustees allocates sufficient financial resources and investments to ensure that all the human resources, equipment, and infrastructure are available for the program's long-term sustainability.

Requests for investment can be initiated by staff, students, senior management, and the Board of Trustees. All requests must be submitted to the office of finances for review of available funds and resources. This is necessary if the potential for new learning resources or facilities is not planned with the Strategic Plan. Universum International College operates through a centralized system and the individual program budgets are integrated with overall expenditures to ensure financial sustainability and reduce redundant costs.

Universum International College invests annually in the purchase of electronic and technological devices to improve the educational process. The investment is aimed at introducing modern and technologically advanced devices to students and increasing the efficiency and effectiveness of routine work at the college. The devices are equipped with the latest software available for commercial, teaching, and study purposes.

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Universum International College has an agreement with Microsoft to use its software free of charge for educational and research purposes. The college also has its own e-learning system where students can access course materials, submit their work, communicate with their teacher, and interact with other students. They have introduced Coursera for Institution to all of their students and staff, offering free access and no tuition fees during the pandemic period. All services provided to students and academics are automatized through the implementation of various software and online tools. The college employs seven software that are utilized regularly by staff and students, and they plan to increase this capacity shortly. Universum has submitted ten more capacity building projects to the EU commission under the ERASMUS + K2 frame that will bring new dimensions to learning and teaching.

Universum offers students access to prestigious electronic libraries such as EBSCO, GALE, OXFORD Scholarship Online, and OXFORD Journals. These libraries contain a vast

collection of electronic books and magazines from different fields such as economics, finance, philosophy, political science, biology, history, literature, physics, and psychology.

The budget plan is on the level of the college and not on the level of the study program. the existing building and the pan of the new building seems not taking into account the students with special needs.

Compliance level: Substantially compliant

ET recommendations:

1. *The expert team recommends that UNI have a dedicated budget plan at the program level to demonstrate its sustainability.*
2. *The expert team recommends that UNI subscribe to relevant online publications/journals related to Data Science to enable the master's students to progress more in their theses and research. Access to these resources might be granted through the agreement with ASU.*
3. *Create access opportunities for students with special needs in existing buildings as well.*
4. *AWS Academy has a free agreement with universities. It is recommended that UNI contact AWS and discuss the possibility of the MS students getting access to the computing resources of AWS.*

3. FINAL RECOMMENDATION OF THE ET

We provided similar suggestions in every chapter, and overall, we have a positive impression. If you maintain high motivation levels, attract the best students, promote collaboration with local and international industry institutions and companies, and take advantage of the possibility to work online, then this program has a promising future. International partnerships, studying and working abroad are advantageous and appealing. Our most important recommendation is to encourage your quality staff and students to plan their return to their homeland, thereby contributing to its prosperity.

Standard	Compliance level
1. Mission, objectives and administration	Substantially compliant
2. Quality management	Substantially compliant
3. Academic staff	Substantially compliant
4. Educational process content	Substantially compliant
5. Students	Fully compliant
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 to meet 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 according to our knowledge, information, and site visit, Universum is an excellent, well-internationally connected institution, but we found some problems related to the curriculum, research, and admissions.

We found that **MSc. in Data Science and Analytics** offered by **PBHE “Universum College”** is Substantially compliant with the standards included in the KAA Accreditation manual and,

therefore, recommend **to accredit** the study programme for a duration of **3 years** with a number of **75 students** to be enrolled in the programme each year **from a computing background** or closely related field.

Expert Team

Member



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22.04.2024

(Signature)

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