



Republika e Kosovës
Republika Kosova - Republic of Kosovo



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

AAB COLLEGE
MASTER OF SCIENCE IN COMPUTER SCIENCE

PROGRAM REACCREDITATION

REPORT OF THE EXPERT TEAM

May 2022, Prishtina



Republika e Kosovës
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1. INTRODUCTION

1.1. Context

Date of site visit: 13.04.2022

Expert Team (ET) members:

- *Peeter Normak*

Coordinators from Kosovo Accreditation Agency (KAA):

- *Arianit Krasniqi*, Senior Officer for Monitoring and Evaluation
- *Ilirjane Ademaj Ahmeti*, Senior Officer for Monitoring and Evaluation

Sources of information for the Report:

- *The Self-Evaluation Report (including four Annexes), Master of Science in Computer Science (SER).*
- *Syllabi of the subjects.*
- *CVs of the academic staff.*
- *Statute of AAB College*
- *Regulations for Master's Studies*
- *Regulation on Quality Assurance*
- *Regulations for Scientific-Research Activities*
- *Rules of Procedures of the Study Commission*
- *Rules of Procedure of the Committee for Quality Assurance*
- *Regulation on Appointment, Re-Appointment and Promotion of Academic Staff*
- *Code of Ethics*
- *Regulation on Prevention of Conflict of Interest*
- *Code of Ethics for Scientific Research*
- *Statute of Students' Union of AAB College*
- *AAB College Industrial Advisory Board. Rules of Procedure*
- *Regulation for Internal Communication*
- *Regulation on Publications*
- *Regulation on Student Academic Mobility*
- *Regulation for the Procedures of Initiating, Drafting and Signing Cooperation Agreements*



- *Regulation on the Report of the Examination Results*
- *Regulation of Work of the Centre for Professional Development and Innovation*
- *Regulation on Disciplinary Measures and Procedures*
- *Grant Regulation*
- *Regulation on Student Application for Project Funding Grants*
- *Regulation on the Description and Systematization of the Workplace*
- *Regulation on Academic Staff Performance Appraisal*
- *Strategic Plan 2022-2026*
- *Regulation on Intellectual Property*

Additional documents

- *Statute of AAB College*
- *Regulation on the Functioning of the Project Development Office (PDO)*
- *Regulation for the Development of Practical Work Outside the College*
- *Annual Working Plan for 2021-2022 of the FCS.*
- *Work Plan 2021-2022 for the Center for Professional Development and Training (CPDI)*
- *Financial Plan of the Faculty of Computer Science MA Level 2022-2027.*
- Evaluation Report about the Assessment Conducted by Academic Staff
- List of trainings for the members of academic staff of the Faculty of Computer Science in 2020-2021 and 2021-2022 academic years
- Templates of questionnaires
- Screenshots of the E-Student and E-Service platforms
- The list of the classes (designation, capacity, location)
- Example of a form-based assessment of the staff performance by the dean
- Overview of partnership agreements
- Syllabus of “Master thesis”.
- Teaching Council of the MA programme and minutes of two meetings.
- Other documents (partly in Albanian).

Criteria used for institutional and program evaluations

- *KAA Accreditation Manual.*
- *The Manual for External Evaluation of Higher Education Institutions.*



1.2. Site visit schedule

Time	Meeting	Participants
09:00 – 09:45	Meeting with the management of the faculty where the programme is integrated	1. Shemsedin Vehapi, Vice Rector for Teaching 2. Jusuf Qarkaxhija, Dean of the Faculty
09:50 – 10:35	Meeting with quality assurance representatives and administrative staff	1. Furtuna Mehmeti, Head of QAO 2. Ersan Hamdiu, QA Coordinator at the Faculty level 3. Zija Rexhepi, Vice Rector for Administration 4. Nusret Bilallaj, Head of IT Office
10:40 – 11:40	Meeting with the heads of the study programme:	1. Shpetim Latifi 2. Ilir Keka 3. Muharrem Bunjaku
11:45 – 12:30	Meeting with teaching staff	1. Arianit Maraj (Msc) 2. Mentor Hamiti (Msc – Online) 3. Laurik Helshani (Msc) 4. Lauresha Ramadanani (Bsc) 5. Rahmil Limani (Bsc) 6. Artan Berisha (Bsc)
12:30 – 13:15	Lunch break (provided at the evaluation site)	
13:15 – 14:05	Meeting with students	1. Shasivar Rexhepi (Msc) 2. Vjosa Shehu (Msc) 3. Bardhyl Sopjani (Msc) 4. Dardan Dajakaj (Bsc) 5. Engjell Limani (Bsc) 6. Vanesa Mulliqi (Bsc)
14:10 – 15:00	Meeting with graduates	1. Endrit Susuri (Msc) 2. Faton Pllana (Msc) 3. Edon Dida (Msc) 4. Arbresha Aliçkaj (Bsc) 5. Bardh Hoxha (Bsc) 6. Indrit Haxhidauti (Bsc)



15:05 – 15:45	Meeting with employers of graduates and external stakeholders	<ol style="list-style-type: none"> 1. Uran Shushka 2. Liridon Bahtjari 3. Agron Ferizi 4. Tuna Bytyqi (online) 5. Valdete Daku 6. Diar Lushtaku 7. Arban Qorri
15:45 – 15:50	Internal meeting of KAA staff and experts	
15:50 – 16:00	Closing meeting with the management of the faculty and program	

1.3. A brief overview of the institution under evaluation

AAB College was established in 2002 and is currently the largest non-public higher education providing institution in Kosovo. Beside of the main campus in Prishtina, the college has branches in Ferizaj and Gjakova. The College has 14 Faculties that offer a wide range of study programs at BA and MA levels. The administration of the College is decentralized where, for example, staff recruitment and advancement, the management of physical resource, transfer of students etc. belong to the responsibilities of the Faculties.

Its mission as stated in the Statute of AAB College is the following: “AAB organizes student-centered diversified and quality studies, engages in quality applied and theoretical research, and provides services to the community and industry for purposes of providing transformational experiences for the full development of students, staff, social and economic partners and society at large.”

The vision of AAB College is to become a leading education and research institution that exemplifies the best national and international quality, values and traditions in higher education and promotes high standards of academic and research life at home and abroad, in line with new technological developments.

The Faculty of Computer Science (the *Faculty* or FCS) offers three bachelor programs (Computer Science; Cyber Security; Programming) and one master program (Computer Science). Study programs in computer science (BA and MSc) were initially accredited in 2010



and re-accredited in 2013 and 2016. Study program in Cyber Security was accredited in 2019 and in Programming in 2021.

The mission of the Faculty is “to prepare students for a globalized technology and information society, through advanced theoretical and practical teaching as well as through advanced scientific research in the most important fields of technology. FCS combines an interdisciplinary core with specialized studies that enable students to solve complex and focused problems as well as prepare them for a career in an industry-based society“. FCS has the following strategic objectives:

- to strengthen the quality of studies through the advancement of teaching and learning strategies;
- to support development and research projects of staff and students in order to increase the relevance of studies;
- to advance working conditions through innovation and use of new technologies in order to develop the quality of technological and research services;
- to improve the infrastructure of laboratories which responds to the increasing demands and changes of information technology;
- to design curricula and enable the most professional literature so that the latest information technology trends can be incorporated in the study programs.

The Expert Report of the previous accreditation (2016) formulates the following recommendations:

1. *Increase flexibility of the programme either by introducing electives or by foreseeing a possibility to compose an individual study plan (by replacing one or more courses with individual ones).*
2. *Organization, supervision and assessment of independent work should explicitly be described in the course descriptions.*
3. *Compose the literature lists in course descriptions from those sources only that are available to the students.*
4. *Research in ICT in the College is currently absolutely not visible. It is suggested that the College determines itself in the national and international research landscape (focusing on applied research for supporting innovation in a locally important sector of the economy).*



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The first recommendation has been followed – there are two elective courses in semesters 1-3 from which each student takes one. There has been improvement in the visibility of the research – every teacher has a positive Google Scholar h-index. The administration and academic staff of the Faculty named Cyber security, Artificial intelligence, Internet of things and Software engineering as the priority research areas in ICT.

However, the recommendations 2 and 3 are still actual.

It is also appropriate to note here that the self-assessment report was partly declarative and did not contain substantive information in some important aspects. For example, the SER states that the library offers “excellent conditions for study and sufficient materials and spaces to meet the needs of students”, without any actual data (number of seats in reading rooms, number and size of rooms for group work, description of the book stock etc). The ET was told by the quality assurance representatives of the College that the SER is based on the *KAA Accreditation Manual*, which does not require presenting concrete data. Here the ET has a different position. The SER of study programs should be fundamentally different from the SER of institutional accreditation: if the existence of relevant regulations and mechanisms for their implementation is decisive for institutional accreditation, then for the accreditation of training programs, compliance with these regulations should be shown. The SER should provide evidence that will allow ET to decide whether the requirements set out in the regulations and standards have been met.



2. PROGRAM EVALUATION

2.1. Mission, Objectives and Administration

- 1.1. The mission of the study program is “to develop independent critical thinkers who can provide leadership in the computer science industry or at the academic level, as well as to prepare them for professional development and long-term researchers who contribute to the economic growth, the advancement of ICT in industry, in both public and private sectors, education and health, etc.". Since the mission of AAB emphasizes student-centred and transformative learning to support the development of society, it can be concluded that the mission of the study program is in compliance with the overall mission of AAB.
- 1.2. The Teaching Council for the Master Program is formed. The review of the study program is discussed every year. For this purpose, representatives of alumni and different institutions were interviewed. The employers of the graduates confirmed at the meeting with the ET that they discussed the study program with the dean and other staff of the Faculty, and that their suggestions were often taken into account.
- 1.3. The main didactics concept bases on the combination of theory and practice, and on the research-driven education: literature reviews and analyses, research projects (both individual and group-based) and presentations as well as formative assessment are heavily used.
- 1.4. There are regulations dealing with recurring procedural or academic issues: *Statute of AAB College, Regulation for Master’s Studies, Regulation on Quality Assurance, Regulation on Student Academic Mobility, Regulation on Disciplinary Measures and Procedures*, etc. The main documents are publicly available on the university website (<https://aab-edu.net/en/about-aab/policies-and-regulations/>). However, some important documents are still not publicly available (for example the *Regulation of Internship*).
- 1.5. The main document regulating the ethical conduct is the *Code of Ethics*. This document considers the core values, the principles and rules of ethical conduct, the Ethics



Committee as well as the measures against ethical violations. There is an additional *Code of Ethics for Scientific Research*.

- 1.6. All university regulations that were available to the ET are adopted or amended during the last three years. Some documents (for example the templates of questionnaires) did not contain the date of their approval. The competence to amend these documents lies with the central bodies of the university, not the Department.

Standard	Compliance	
	Yes	No
<i>Standard 1.1.</i> The study program mission is in compliance with the overall mission statement of the institution.	+	
<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.	+	
<i>Standard 1.3.</i> The study program has a well-defined overarching didactic and research concept.	+	
<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.	+	
<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.	+	
<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.	+	

Compliance level: Fully compliant.

ET recommendations:

1. *Publish on the Web all the most important regulations of the College also in English.*



2.2. Quality Management

- 2.1. The College considers quality assurance to be one of the most important components of its academic activities. Besides of dedicated quality assurance bodies (*Quality Assurance Committee* and *Quality Assurance Office*), the regulatory documents stipulate quality assurance requirements for all members involved in teaching in one or another way (the Senate, the Rector, deans, academic personnel, administrative personnel). Students' involvement in the quality assurance processes is conducted primarily through questionnaires that are mandatory to be filled in at the end of each semester. Staff members compose yearly self-evaluation reports where they – among other aspects – have opportunity to make suggestions for quality improvement.
- 2.2. In addition to various questionnaires, the College has implemented a number of other quality assurance tools: weekly meetings of the academic staff in the Dean's office, training of academic staff in teaching methodology and course development, semester reports at the end of each semester etc. According to the *Regulation on Quality Assurance*, the quality assurance procedures are applied throughout the whole educational process and involves all stakeholders in- and outside the College. Quality assurance is conducted according to the plan of activities which includes different evaluations and assessment. Questionnaires of different type are the main instrument of the evaluations; *SurveyMonkey* platform is used. There are conducted focus group meetings where also students are involved.
- 2.3. Questionnaires and focus group interviews are the main instruments for quality assurance. The questionnaires target all major stakeholders and deal with all significant aspects of program planning, delivery and support services (including administrative and technical services). Questionnaires are used for the evaluation of the courses, of the academic personnel, of practical work, of the infrastructure and of student support services. There are also questionnaires for graduates, for graduating students, for employers of graduates, for industry and for students who have dropped out. The Quality Assurance Office ensures the proper administration of the quality assurance processes. Assessments with graduates are conducted electronically through the *SurveyMonkey* platform, which is distributed to students via SMS.
- 2.4. The questionnaires referred to in section 2.3 focus on the quality of the subjects. The quality issues related with the study program as such belong to the competence of the Teaching Council for the Master studies and to the Council of the Faculty. Some assessments are conducted by the Quality Assurance Office centrally at the College. The following activities of the quality process of the study program were listed during the meeting: 1) analysis of similar study programs, 2) identifying trends and challenges, 3) analysis of the market and industry needs, 4) meetings with alumni and



- representatives of the companies, 5) review of the study program based on the analyses listed in 1)-4).
- 2.5. The *Quality Assurance Regulation* of the College states that one of the responsibilities of the Quality Assurance Office is to ensure that *Standards and Guidelines for Quality Assurance* as well as other applicable documents in the European Higher Education Area (EHEA) are widely implemented within the institution. However, the fact that some requirements are not always satisfied or are satisfied formally (for example, not every academic staff has published at least an average of one scientific/applied research publication per year for the past three years) allows to conclude that the quality assurance processes do not ensure that required standards are always met. The fact that there are no other persons responsible for the quality of the study programs of the Faculty, except for the dean, carries a quality risk – one person is unlikely to be able to devote enough to all study programs taught at the Faculty.
 - 2.6. There are questionnaires for graduates, for graduating students, for employers of graduates, for industry and for students who have dropped out. As the questionnaires for students are mandatory for students and will be filled in at the end of each semester, the questionnaires for academic and administrative staff are conducted once a year and questionnaires for graduates, employers and industry every two years. Questionnaires for graduating students and questionnaires for students who withdraw from studies are completed continuously. However, the results of these evaluations are not made publicly available. ET was also told that no feedback would be given on students' responses (suggestions made in the completed questionnaires).
 - 2.7. The Quality Coordinator of the Faculty involving the Quality Assurance Office compiles reports based on the data that are collected from the questionnaires. These reports together with recommendations will be sent to the management of the Faculty and the College (to the Quality Assurance Office). These recommendations serve as a basis for improving the study programs, student services, teaching and learning, etc.
 - 2.8. The document *Regulation on Quality Assurance* sets out the requirement for the Quality Assurance Coordinator to assist the dean in compiling semester reports at the end on each semester as well as in conducting internal evaluations for accreditation purposes.
 - 2.9. The fact that big part of the latest versions of the documents came into force in the last three years shows that quality assurance arrangements for the study program are regularly evaluated and improved. Most of the regulations relating to quality issues were revised in 2021 including the Regulation on Quality Assurance, the Manual on Quality Assurance, the student questionnaire.



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.	+	
<i>Standard 2.2.</i> Evaluation processes and planning for improvement are integrated into normal planning processes.	+	
<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.	+	
<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.	+	
<i>Standard 2.5.</i> Quality assurance processes ensure both that required standards are met and that there is continuing improvement in performance.		+
<i>Standard 2.6.</i> Survey data is being collected from students, graduates and employers; the results of these evaluations are made publicly available.		+
<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.	+	
<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.	+	
<i>Standard 2.9.</i> The quality assurance arrangements for the program are themselves regularly evaluated and improved.	+	

Compliance level: Substantially compliant

ET recommendations:

1. *It is recommended to nominate **one** highly qualified academic staff member as a curator/coordinator of the study program who has the full responsibility on the quality of the study program. The curator will then form a permanent council of the*



study program, including representatives of employers, partners, students, graduates and some key academic staff including other heads of the study program. The task of the council will be to propose recommendations for further improvements of the study program based on surveys of all stakeholders, international development trends of the academic area, work division between higher education institutions in Kosovo and the needs of society. The authority and responsibilities of the curator should be explicitly defined in the university regulations.

2. *Publish the results of evaluations at least on the Intranet of the College.*

2.3. Academic Staff

- 3.1. The employment of staff is conducted according to the *Statute of AAB College*, the *Regulation on Appointment, Re-Appointment and Promotion of Academic Staff* as well as other relevant documents. The job descriptions are in the *Regulation for Systematization of Jobs*. The SER contained a complete list of full-time and part-time academic staff where for each person scientific degree, academic title and workload is indicated. The courses taught are listed in another table in the SER.
- 3.2. Legal requirements set for teaching staff are met: the employment of academic staff is done in full compliance with the Law on Labour, the *Statute of AAB College* and the *Administrative Instruction on Accreditation of HEIs*. All 16 teachers having a course in the study program have a PhD degree.
- 3.3. The formal requirements concerning employment of academic staff by other institutions are met – all full-time teachers are indicated in their publications AAB as their only employer. Of the 16 academic staff members who have at least one course in the study program, 14 are listed in the SER as having full-time position at AAB College; all full-time staff members have listed AAB College as their employer also on the Google Research portal.
- 3.4. The vast majority (more than 80%) of teachers have full-time employment, and consequently, they cover the vast majority (about 90%) of the courses.
- 3.5. Although the majority of teachers are listed among the teachers of more than one study program, the total amount of staff with a PhD is sufficient for all study programs of the Faculty: four staff members with a PhD are assigned specifically to the MSc in Computer Science study program.



- 3.6. AAB College has established and operationalized the Center for Professional Advancement and Innovation. Staff training programs are divided into three levels – basic, professional and advanced levels. The *Individual Professional Development Plan* consists of four parts: 1) Personal goals and objectives, 2) Personal analysis, 3) Development plan, 4) Measures to achieve the goals/objectives. However, the teaching staff indicated that the need for career development is bigger than the College can afford: need for more sabbaticals and trainings in leading foreign universities, training in writing project proposals and in fund-raising etc was mentioned. Young researchers and lecturers are encouraged to pursue their doctoral studies while retaining their teaching duties at the AAB College.
- 3.7. The responsibilities of teaching staff are defined in the *Statute* of the college, in the *Regulation on Systematization of Jobs of AAB College* and other documents. These include among other responsibilities the engagement in the academic community, availability for consultations with students and community service. A list of activities organized by the academic staff was attached as an appendix to the SER.
- 3.8. The evaluation of academic staff is based on three components, namely the self-assessment, the students' assessment and the assessment by the supervisor (the Dean). Self-assessment is form-based, and conducted once a year. Assessment by students is anonymous and is conducted through electronic questionnaires that students complete at the end of each semester. Superior's assessment is based on the self-evaluation reports of the academic staff. However, no regular development interviews are conducted – the face-to-face discussion takes place only if the Dean finds it necessary to discuss some aspects presented in the self-evaluation report. The results of the evaluation are not made public. However, the College plans to start publishing them in a generalized form in the Newsletter. The system of peer-evaluation is designed, but not implemented yet.
- 3.9. The Strategic Plan for 2022-2026 sets development of teaching/learning resources and learning environment as belonging to the priority areas of the College (one of the five strategic goals) – three measures are for the development of academic staff in accordance with their needs for quality student-centered teaching and two measures for digitalization of teaching as well as for improving the capacities for a qualitative implementation of digitalized teaching forms in teaching. Improving the quality of learning materials were not explicitly mentioned in the strategy documents. Moreover, students who met with ET mentioned the lack of learning materials in Albanian language as one of the problems related to their studies.
- 3.10. There are no retired teachers – the average age of full-time teaching staff is about 47 years.



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) 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.	+	
<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.	+	
<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.	+	
<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.	+	
<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.	+	
<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.	+	
<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.		+
<i>Standard 3.9.</i> Strategies for quality enhancement include improving the teaching strategies and quality of learning materials.		+
<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.	+	



Compliance level: Substantially compliant/

ET recommendations:

1. *Introduce yearly development interviews of the staff – both academic and non-academic - by the superiors that are based on the self-evaluation reports.*
2. *State the development of learning materials as one of the priorities of the AAB College in the strategy documents, and provide the necessary resources for their development in the budget of the College.*

2.4. Educational Process Content

- 4.1. Three first semesters of the study program have the same structure – four mandatory and two elective courses from which every student selects one. Every course has the size of 6 ECTS. The general conception and composition of the study program is reasonable, having courses on software engineering, data science, data mining, cyber security, cloud computing, e-commerce, distributed systems etc. However, some aspects were not clear enough or were even confusing. The following conclusions can be drawn from the submitted documents and conversations with lecturers, students, alumni and employers of alumni:
 - 4.1.1. It is not clear what major ICT professions graduates are trained for, for example, according to the 30 e-CF/ICT professional role profiles. The heads of the study program explained that the majority of graduates work as software developers.
 - 4.1.2. Professionals with a master’s degree usually have a higher managerial role compared to bachelor graduates, from team lead and sometimes even as CIO’s. The learning outcomes of the study program and of the courses do not contain – at least explicitly – the competences necessary for these roles. For example, what competences – if at all – the graduates are expected to have in:
 - Enterprise architecture
 - ICT strategy development and governance
 - Digital transformation
 - ICT innovation and organizational change.



The importance of these competences was especially emphasized by employers of graduates. They considered them so important that an entire master's program in IT management could be composed.

- 4.1.3. It is claimed in the SER that students have internship that is divided into two parts: 1) within the subject “Project/internship” and 2) within the “Master project”. However, according to the syllabus of the subject “Project/internship”, this seems to be a course of a traditional type. Moreover, internship within the “Master project” seems to be optional (SER page 27: “students who will attend the internship”).
- 4.1.4. The principles of division of the subjects between mandatory and electives, as well as the topics in a subject, remains sometimes unclear. For example, “Software Quality Assurance and Risk Management” is an elective, while both software quality assurance and risk management are the cornerstones of software development. On the other hand, the subject is primarily about testing.
- 4.2. Although the analysis of compliance of the study program with the *National Qualifications Framework* and the *Framework for Qualifications of the European Higher Education Area* was quite general, the study program and its expected learning outcomes comply with these frameworks.
- 4.3. The study program has 20 learning outcomes. The subjects are in general in a logical flow and have relatively thorough lists of learning outcomes as well. Although the focus of the study program is software engineering, both the students and employers of graduates expressed their opinion at the meetings with ET that software engineering could be represented in the study program to an even greater extent. Some concrete aspects were also named such as game development. On the other hand, the interests of the employers were much wider than it is possible to accommodate in one study program – adding also courses on infrastructure, big data and data science and on social media were suggested.
- 4.4. The syllabi contain all the necessary components and were submitted in electronic form. They are in general detailed enough to get an adequate understanding on the content and other aspects of the subjects. The fact that the learning outcomes were divided into knowledge, skills and competences is unusual (also used in the National Qualifications Framework) – knowledge and skills are often considered to be components of competencies.
- 4.5. The language in which the study program will be offered is English. The ET was not informed at any measures to ensure that language skills of both students and



academic staff are adequate for learning and teaching, respectively. On the other hand, there was no need to have translation during meeting of the ET with students and staff. Nevertheless, the fact that students are not required to take the entrance exam in English carries certain risks.

- 4.6. The student-teacher relationships seem to be very good, students provided a lot of evidence for this during discussions with the ET. The syllabi are made available to students through the E-service platform a week before the start of the semester. There is also an electronic platform E-Student for a communication between lecturers and students. Teachers explain the content of the course, the requirement, assessment and other features of the course at the first lecture.
- 4.7. The college has adopted a student-centred approach. Students are also engaged in interactive way of learning where students have small projects and periodic presentations, discussions and other interactive methods. Teaching methods and sometimes also assessment methods are thoroughly described in the syllabi.
- 4.8. Students with whom the ET met did not complain about the assessment.
- 4.9. The grading system that is used in all Balkan countries is used. The grades are 5, 6, 7, 8, 9, 10 where 5 marks failing and 6-10 are positive. The passing level is 50% as widely used in Europe. After the end of semester, students' success rate for each course is presented in form of a report.
- 4.10. The report that is composed at the end of semester contains – among other – the following data: the number of students who have applied to enter the exam, the number of students who have taken the exam, the number of students who have passed the exam, as well as the number of those who failed. These reports are analysed by the administration and additional measures taken if necessary.
- 4.11. As already mentioned in section 4.1.3, the study program in fact does not contain a mandatory internship. Nevertheless, the students are provided opportunity to have an internship. However, it turned out that securing an internship to all students is a challenge. One of the reasons for this may be the fact that internships are managed by the Career Office, which may not have sufficient contacts with sectoral institutions.
- 4.12. The Faculty has signed agreements for the purpose of research and development and conducting internships with more than twenty institutions. Employers of the graduates with whom the ET met confirmed that their institution has concluded an agreement or Memory of Understanding with the AAB College.



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 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.	+	
<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.	+	
<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.	+	
<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.	+	
<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.	+	
<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.	+	



<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.	+	
<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 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.	+	
<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.	+	
<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. <i>*To be inserted the overview of the program (with all areas to be filled out)</i>	+	

Compliance level: Fully compliant

ET recommendations:

1. *Include internship as compulsory subject in the study program.*
2. *Consider introducing an English language entrance exam.*

2.5. Students

- 5.1. General principles of admission are stated in the *Statute* of the college and the general procedures are stated in the *Regulation for Student Registration*. The procedures and conditions for admission to master studies are stated in the *Regulation for Master's Studies*. The Faculty Council decides about the criteria. Admission to the studies is done on the basis of a public call.



- 5.2. Students enrolled must have completed Bachelor studies in a recognized and accredited study program and possess personal documentation, such as school certificates, identity cards, etc. Students who wish to enrol from other fields of studies than Computer Science, must complete 3 differential exams which are: *Computer Architecture, Database Systems and Algorithms and Database Structures*.
- 5.3. The number of study places is supposed to be 80. The maximum number of students on lectures is 60, and 20 for exercises. This allows to use the necessary individual approach and interaction with students.
- 5.4. For feedback to students on their performance, mainly regular staff-student communication means are used. In accordance with the Regulation on Master Studies, the communication of student evaluation results is done no later than 7 days from the date of the exam. Although the ET was not provided with any document specifying procedures and timelines for continuous feedback to students (for example, on homework), the students confirmed that they are informed promptly about assessment results through the e-Service platform.
- 5.5. The college has established an e-Service platform to which students have individual access. This platform records individual student achievements and contains all materials and information needed to pass the courses. Grading is done electronically for each course and a transcript of records can be generated at any time.
- 5.6. The scheduling of exams is set by the Central Administration of the College. The Senate of the College may decide to announce additional terms for exams. Students confirmed that if they have requested for extension of deadlines or change of exam date, these requests were always granted.
- 5.7. At the end of each exam period, an evaluation report for students' performance is generated through the E-service platform. The report contains statistical information about the number of students present in the exam, the percentage of those who passed the exam as well as of those who failed.
- 5.8. The college has not fully implemented any plagiarism detection software, and checking originality of students' written texts is not regulated. However, the college is currently in the implementing phase of a plagiarism detection software *Turnitin*.
- 5.9. The rights and obligations of students and issues of non-academic conduct are stated in the *Statute* of the College as well as in the *Regulation on Studies* which are publicly available documents. Obligations are also provided under the contract which the student signs upon enrolment in the College, as well as through the electronic platform E-Student. The procedure for possible complaints is described in the *Regulations for Master's Studies*.



- 5.10. The students' transfer is regulated in the *Statute* of the College and in the *Regulation for Master Studies*. All students' rights and obligations are made publicly available. The transfer of students to the programs of Computer Science is done through the Transfer Office which in cooperation with the Quality Assurance Coordinator within the Faculty verifies the files of each candidate. According to the Statute of AAB College, transfer candidates must spend at least one academic year at AAB College prior to their graduation. The mobility is regulated in the *Regulations on Student Academic Mobility*.
- 5.11. Each member of the academic staff has two hours per week, specified for individual meetings / counselling with the student. In cases where the requests for meetings are high, the academic staff is obliged to hold even more consultations per week with students, either physically or online, through electronic platforms. An academic staff is appointed as an academic advisor who helps students with the difficulties they encounter while studying in the Computer Science programs. According to the students, the teachers answered their questions promptly, even outside working hours.

Standard	Compliance	
	Yes	No
<i>Standard 5.1.</i> There is a clear and formally adopted admission procedure at institutional level that the study program respects when organising students' recruitment. Admission requirements are consistently and fairly applied for all students.	+	
<i>Standard 5.2.</i> All students enrolled in the study program possess a high school graduation diploma or other equivalent document of study, according to MEST requirements.	+	
Standard 5.3. The study groups are dimensioned so as to ensure an effective and interactive teaching and learning process.	+	
<i>Standard 5.4.</i> Feedback to students on their performance and results of assessments is given promptly and accompanied by mechanisms for assistance if needed.	+	
<i>Standard 5.5.</i> The results obtained by the students throughout the study cycles are certified by the academic record.	+	
<i>Standard 5.6.</i> Flexible treatment of students in special situations is ensured with respect to deadlines and formal requirements in the program and to all examinations.	+	
<i>Standard 5.7.</i> Records of student completion rates are kept for all courses and for the program as a whole and included among quality indicators.	+	



<i>Standard 5.8.</i> Effective procedures are being used to ensure that work submitted by students is original.	+	
<i>Standard 5.9.</i> Students' rights and obligations are made publicly available, promoted to all those concerned and enforced equitably; these will include the right to academic appeals.	+	
<i>Standard 5.10.</i> The students' transfer between higher education institutions, faculties and study programs is clearly regulated in formal internal documents.	+	
<i>Standard 5.11.</i> Academic staff is available at sufficient scheduled times for consultation and advice to students. Adequate tutorial assistance is provided to ensure understanding and ability to apply learning.	+	

Compliance level: Fully compliant

ET recommendations:

1. *None.*

2.6. Research

- 6.1. According to the learning outcomes of the study program, a graduate “demonstrates in-depth knowledge about research and development in the field of computer science”, “gains advanced knowledge about literature and research methods used in the field of computer science”, “presents research and results clearly in the field of computer science” and “classifies and argues the knowledge for the selection of scientific literature, methods and theories in the field of computer science”. The study program has “Scientific Research Methods” as one of the courses. The Master Thesis has 30 ECTS which allows planning and completing a decent master thesis. The whole process of – from approving the topic until the defence of the thesis – is thoroughly described in the *Regulation for Master’s Studies*.
- 6.2. Expectations for teaching staff involvement in research and scholarly activities and performance in relation to these expectations are specified in the work contract, in the *Statute of the College*, in the *Regulations for Scientific-Research Activities* and in the *Regulation on Appointment, Reappointment and Promotion of Academic Staff*.



- 6.3. Expected research results and measures and actions under each measure are determined in the *Strategic Plan 2022-2026*. The role of different stakeholders is determined in the *Regulation for Scientific-Research Activities*.
- 6.4. Every academic staff who has at least one course on the study program has a positive *Google Scholar* h-index. The research of the academic staff does in the majority of cases harmonize with the topics they teach.
- 6.5. The research of academic staff is internationally visible (for example, in *Google Scholar*). The publications of some academic staff have relatively high citation scores. However, all academic staff with high citation scores work part-time. Moreover, participation in international conferences has been extremely low. Some other important instruments for high level research – active research groups, regular research seminars, involvement in international research projects etc – are not sufficiently developed as well.
- 6.6. Research is basically validated by scientific publications. Establishing mechanisms and defining procedures for sustainable cooperation with industry is one measure in the *Strategic Plan 2022-2026* and the number of research conducted for the industry is one performance indicator. On the other hand, technological transfer is not facilitated by the salary system, as salaries do not depend on cooperation with companies.
- 6.7. Formally, almost all but maybe two or three academic staff member have published at least an average of one publication per year for the past three years. Here the question arises what publications can be qualified as a scientific/applied research publication. For example, according to the table on pages 35-36 of SER, about 1/3 has not published at least an average of one publication per year for the past three years. As the publication of research results in top journals is the most important indicator of competence and the involvement in international research projects also depends on it, the increase of research capacity largely determines the level of fulfillment of the College's research goals.
- 6.8. The academic staff within the Faculty publishes papers under the name of the AAB College.
- 6.9. The study program focuses on software engineering. The students claimed that since some teachers are professionals in software engineering, it was always possible to discuss with them on specific topics of software engineering. However, no evidences were given to the ET that academic staff are encouraged to include in their teaching information about their research and scholarly activities.
- 6.10. Procedures for the development and commercialization of intellectual property are stated in the *Regulation on Intellectual Property*. Issues relating to intellectual



property are also foreseen in the Employment contract of academic staff, Article 14, which stipulates that intellectual property rights in any work that is done or created by the employee during the employment relationship (during the hours and in the workplace) shall be counted as the employer's work. Intellectual property issues are also regulated on the national level.

- 6.11. Since the study program contains a mandatory subject *Research Methods in Engineering* and relatively large number of credits (30 ECTS) is assigned to the *Diploma Thesis*, good preconditions are created for engagement of students in research projects. Students of AAB have achieved great success in various competitions, some of them received the “Innovation of the Year” award and some mentioned participation on conferences and publishing in conference proceedings. The students explained that they were offered to participate in the projects more than they were able to do and were sometimes forced to withdraw from the offer.

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.	+	
<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.	+	
<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.	+	
<i>Standard 6.4.</i> The academic staff has a proven track record of research results on the same topics as their teaching activity.	+	
<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.		+
<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.	+	



<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.		+
<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.	+	
<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.	+	
<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.	+	
<i>Standard 6.11.</i> Students are engaged in research projects and other activities.	+	

Compliance level: Substantially compliant

ET recommendations:

- Put extra efforts to support the implementation of the necessary instruments of high-level research (forming research groups, running regular research seminars, conducting joint research projects with other research centres etc).*
- Improve support mechanisms for academic staff to support the growth of their research capacity (conducting research, writing research articles, planning and conducting research and development projects, etc.).*

2.7. Infrastructure and Resources

- 7.1. The Faculty of Computer Science operates on the Prishtina campus, which has a modern infrastructure on an area of about 40 000m². Thus, students can use services offered also by the central offices of the College. For communication with the administration, an electronic platform *e-Student* is used. The Faculty has five IT laboratories. In conclusion, it seems that the Faculty has enough space. However, the structure of the classrooms is relatively unbalanced - there are no small rooms for group discussions and seminars. Even in Informatics labs there are 40 seats, although there can be up to 20 students in the exercises.



- 7.2. The Financial Plan for the Master’s program is composed until 2026/27 academic year. Unfortunately, the Financial Plan is extremely formal and partly inadequate. For example, if the number of admitted students increases from 40 to 80, the annual increase during the first two years is 40 (instead of 80 already in the first year). The same is true for teachers' salaries, which will double already in the first year, although full student numbers are expected to be reached in two years. Moreover, the Financial Plan is not in line with AAB's strategic objectives. In a situation where AAB College has declared that research will be a priority for the coming years, revenue from projects is projected to fall from around 11% in 2022/23 to 6% in 2026/27.
- 7.3. AAB owns the buildings and practically all the equipment it uses.
- 7.4. Considering the number of students, the number and size of teaching classrooms and laboratories is adequate. At the same time, it seems that there is not enough environment in the public space for students to work outside of class, apart from the library.
- 7.5. The general numerical requirements for the library seem to be met. However, the library and library services are only partially described in the SER – electronic resources are described in detail, but not some other features: the number of seats in group work rooms or other services that the library offers. The ET was given two lists of books. However, most of the textbooks listed in the Literature section of syllabi were not in these lists. According to the students, there is a shortage of textbooks in Albanian.
- 7.6. The infrastructure meets the minimum standards for students with special needs: the College has flat entrances, elevators, special toilets and emergency exits.

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.	+	
<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.	+	
<i>Standard 7.3.</i> The higher education institution must demonstrate with adequate documents (property deeds, lease contracts, inventories, invoices		



<p>etc.) that, for the study program submitted for evaluation it possesses the following, for the next at least three years:</p> <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>	+	
<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>	+	
<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>	+	

Compliance level: Fully compliant

ET recommendations:

1. *For further development of the infrastructure, design the space distribution and furnishing in such a way that it allows conducting small group seminars and discussions.*



3. FINAL RECOMMENDATION OF THE ET

The following comments and recommendations need to be considered in relation to the program accreditation:

1. The visit showed that obtaining a master's degree in information technology is educationally a dead end both in the AAB College and in Kosovo in general – there are no opportunities for continuing education on doctoral level in IT in Kosovo. At the same time, almost all undergraduates and several graduates expressed their interest in continuing their studies on doctoral level. However, none of them considered it possible to study abroad. Consequently, due to the lack of opportunities for doctoral studies in IT in Kosovo, the professional potential of IT master's graduates remains fully unrealized. In the long term, this will have a negative impact on the sustainability of the IT teaching staff, as well as on the development of the economy and society in general in Kosovo. Therefore, it is highly recommended to start a doctoral program in IT in Kosovo, possibly as a joint effort of higher education institutions.
2. The number of admitted students has decreased over the last three years from 40 to 29. This raises the question of whether the College will be able to double the number of students admitted, to 80 students per year. However, given the high quality of the study program and the great need for graduates in Kosovo, the number of students admitted could be raised. This means that the College must significantly increase its efforts to market the study program.

Overall compliance:

Standard	Compliance level
1. Mission, objectives and administration	Fully compliant
2. Quality management	Substantially compliant
3. Academic staff	Substantially compliant
4. Educational process content	Fully compliant
5. Students	Fully compliant
6. Research	Substantially compliant
7. Infrastructure and resources	Fully compliant
Overall compliance	Fully compliant



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

In conclusion, the Expert Team considers that the study program Master of Computer Science offered by AAB College is *Fully compliant* with the standards included in the *KAA Accreditation manual* and, therefore, recommends *to re-accredit* the study program for a duration of 5 years with a number of 80 students to be enrolled in the program.

Expert Team

Member

26.05.2022

(Signature)

Peeter Normak

(Date)