Evaluation Final Report

Application for accreditation

Bachelor Program
"Computer Sciences, BSc"

April 21, 2015

Contents

0 Preface

The present document is the final evaluation report on the program "Computer Sciences, BSc" at Kolegji Pjetër Budi. The evaluation report is based on the self-evaluation report (SER) and associated documents provided by Kolegji Pjetër Budi and the visit of the expert team (ET) on March 26, 2015.

The ET acknowledges the extended reply on the draft report reflecting the College´s dedicated commitment to run the program. Based on the guideline that only comments concerning the factual situation are to be considered the ET did not feel compelled to make any changes to the draft report.

The ET faced an irritation concerning the self-evaluation report. In addition to the SER version dated October 31, 2014 delivered to the ET by KAA an updated version, dated March 2015 was presented at the meeting. This version contained several improvements, in particular a new list of staff in charge for the Computer Sciences program. It was discussed that the original version dated Oct. 2014 had to serve as the basis of the evaluation, because the ET could only comment on the document they have been studying beforehand. It was impossible to reflect on the updated SER delivered only on site. However, as an exception, it was agreed that the staff list included in the updated SER was accepted instead of the one provided in the previous SER. In addition to that another updated staff list has been provided as additional document on March 30, 2015 (List of academic staff for Computer Sciences academic program). Yet, this updated staff list had to be in accordance with the list of eligible staff provided by KAA.

0.1 External Experts

The expert team consisted of
- DI Dr. Erwin BRATENGEYER, Danube University, Krems, Austria
- Prof. Dr. Johann GÜNTHER, Jianghan University, China, IAFeS (International Association for eScience)

accompanied during the site visit by
- Mrs. Fortuna MEHMETI
  Acting Director
  Expert for Evaluation and Accreditation, KAA
- Mr. Shkelzen GËRXHALIU
  Officer for Evaluation and Monitoring, KAA

0.2 Information Basis of the Assessment Report

Main document:
- SELF- EVALUATION REPORT, College "Pjetër Budi" – Prishtina, 31 Tetor 2014

Other documents:
- List of Academic Staff per March 24th 2015, Kolegji - College Pjetër Budi
- Kolegji - College Pjetër Budi, Institutional and Academic programs re-accreditation and accreditation Final Report, Site visit April 3rd – 4th, 2013
- Kolegji - College Pjetër Budi, Academic programs reaccreditation and accreditation, Final Report, Site visit March 11th – 12th, 2014
- SILLABUS Form of Subject, Kolegji - College Pjetër Budi
- Sample for WORKCONTRACT, Kolegji - College Pjetër Budi
- Sample of Questionnaire, Kolegji - College Pjetër Budi
- KOLEGJI "PJETëR BUDI" – PRISHTINË, COLLEGE "PJETËR BUDI" – PRISHTINA, SHTOJCA E DIPLOMËS/DIPLOMA SUPPLEMENT
- Form for calculating student workload / ECTS, Kolegji - College Pjetër Budi
- CV Example, Kolegji - College Pjetër Budi
- REGULATION ON PROCEDURES FOR DEVELOPMENT, REVIEW AND APPROVAL OF NEW CURRICULA, Kolegji - College Pjetër Budi
- REGULATION ON THE ORGANIZATION OF EXAMS AND EVALUATION OF STUDENTS, Kolegji - College Pjetër Budi
- THE COLLEGE "PJETËR BUDI" INSTITUTE FOR STUDIES PRISHTINA, REGULATION ON MASTER STUDIES
- REGULATION ON GRADUATION OF THE STUDENTS FROM THE COLLEGE "PJETËR BUDI", INSTITUTE FOR STUDIES IN PRISHTINA
- CONTRACT FOR STUDIES, Kolegji - College Pjetër Budi
- COLLEGE "PJETËR BUDI", INSTITUTE FOR STUDIES – PRISHTINA GOVERNING STATUTE
- Cooperation Agreement with Dardania
- Contract on Scientific and Teaching Cooperation with Faculty of Tourism and Hostelry, Ochrid, Macedonia
- THE COLLEGE "PJETËR BUDI" PRISHTINA PRIVATE BEARER OF HIGHER EDUCATION IN REPUBLIC OF KOSOVO, STRATEGY OF THE COLLEGE "PJETËR BUDI" ON ENHANCEMENT AND RENEWAL OF THE ACADEMIC STAFF
- Information Table, Kolegji - College Pjetër Budi
- BPrAL Pjetër Budi Decision 2009
- BPrAL Pjetër Budi Decision 2010
- Certificate, BPrAL Pjetër Budi Decision 2009
- Certificate, BPrAL Pjetër Budi Decision 2010
- Decision 2011. Ministry of Education, Kosovo
- Decision 2012. Ministry of Education, Kosovo
- Decision 2013. Ministry of Education, Kosovo
- License 2006. Ministry of Education, Kosovo

- License 2007. Ministry of Education, Kosovo
- CVs and Pre-contracts, Kolegji - College Pjetër Budi

On March 30th 2015 we received from KAA the following documents:
- List of academic staff for Computer Sciences academic program
- List of online resources for Computer Sciences academic program
- CVs of academic staff of the program
- Organigram of the college organization

On April 16th 2015 we received from KAA the following documents:
- ANNEX 1: Curriculum adjusted based on sugestions extracted from the Team of Experts Draft Evaluation Report
- ANNEX 2: institutional organogram
- ANNEX 3: computer science department organogram
- ANNEX 4: estimated budget plan (2014/2015 – 2016/2017)
- ANNEX 5 : list of software applications already installed
- ANNEX 6 : staff list
- comments on the draft report

0.3 Timetable for the site visit

25th March 2015
- Introduction Meeting with KAA

26th March 2015
- Meeting with the management of the Institution
- Meeting with responsible persons for the study programs (Curriculum, teaching, research)
- Visit to facilities
- ET and Coo., KAA consultation
- Closing meeting with the management of the Institution
- Final Meeting with KAA

The experts compiled this report according to the standards of the Kosovo Accreditation Agency and its guidelines for experts regarding the academic programs assessment as well as its code of good practice for site-visits.

1 Academic Program

The College seems to lack of an overarching policy, as there is no vision, no mission no strategy available, neither for the college itself, nor for the program of Computer Sciences in particular. The College should take a strategic approach in order to back up the decision of introducing a new program which is not related to the other programs currently in place. In order to ensure sustaining success synergies should be enabled. It was not evident to the ET why explicitly the Computer Sciences program has been chosen amongst several other IT-related programs. Likewise, the profile of the program has not been indicated in the SER (table on page 13). A specialization is required because there are several options available. The specialization will provide a framework which allows for a consistent course design rather than just stringing together lectures. Nevertheless, it seems to be very appropriate to offer a Computer Sciences program given the economic situation in Kosovo. This has been confirmed by the College´s preceding research according to the reporting at the meeting.

Introducing a new program has fundamental implication on such domains like staff, infrastructure, equipment, budgeting, public relation, etc. In particular, for designing such a program properly a clear picture of the target group is important. Questions to be raised include: Who is the target group of students and stakeholders? In which direction should they be trained, for the Kosovo market or for the international market? Which law should be referred to in the program: Kosovo law, international law, European law?

Recommendation 1:
- *Provide a vision and a mission statement based on an overarching policy which allows for justification of implementing a program on Computer Sciences.*
- *Illustrate the potential synergies between the current programs and the new program.*

The "Computer Sciences, BSc" study program is conceived as a three-year full time program. The "science" degree awarded (BSc) properly reflects the orientation of the program. However, several paragraphs include the term "BA" instead of "BSc". The allocation of 180 ECTS is according to international standards. But in the curriculum each subject has been allocated the same amount of 6 ECTS, which is very unrealistic. This is also true for the allocation of lecture vs. practice hours (45 vs. 15). Both, the relation and the unification throughout all the subjects is not based on realistic assumptions. The commonly used grading table contains gaps due to mathematical inaccuracies which can easily be corrected in order to prevent liable complaints.

Recommendation 2:
- *Make sure not to mix "BSc" and "BA" in all the documentations.*

- *Thoroughly apply ECTS to subjects based on realistic, reasonable, differentiated assumptions. Make use of the ECTS User´s Guide.*
- *Thoroughly allocate realistic, reasonable, differentiated hours of workload to lectures, exercise, seminars, self-study, etc.*
- *Adjust the commonly used grading table to eliminate gaps.*

CURRICULUM

The curriculum contains typical subjects of a general computer science program and the academic aims are appropriate to the academic degree. Yet, one might think of replacing some of the general subjects (Sociology – the description of which is missing, Management Information System, Computer Graphics, Probability and Statistics) with subjects focusing on the specialization of the program. One subject which is clearly missing is Internship. Internships can also be seen as opportunities to intensify links with regional companies. The introduction to Academic Writing is probably more of interest to the students in a later semester when it comes to preparing the bachelor thesis.

Course contents and objectives are presented in a clear manner and relevant literature is listed. In almost any technical domain and particularly in computer science English language plays a predominant role. Teaching, learning and research at an academic level in the IT-domain is very much depending on English literature which was taken into account properly. Yet, some references are outdated and require to be replaced by more contemporary publications. In general, there is quite some practical teaching in labs which is well planned according to the orientation of the program.

Recommendation 3:
- *Provide a description of the specialization of the program and maybe adjust some of the subjects accordingly.*
- *Include "Internship" as a compulsory subject.*
- *Provide a description of the subject "Sociology" and make sure to address mainly IT-related aspects and adopt the title accordingly.*
- *Re-schedule the subject "Academic Writing" to the third semester.*
- *Replace some of the outdated recommended literature by those which are up to date in IT terms. Replace the literature in "Design Multimedia" which does not refer to the subject.*
- *Replace the term "Calculus" by "Mathematics".*
- *Include ethical issues in "IT-Law" also focusing on copyright and the culture of licensing policy of software.*

METHODS

When it comes to teaching methods the curriculum does not contain any information on the methods applied. According to the subjects of such a program one has to expect that up-to-date methods based on substantial use of IT and Internet-based resources will be applied. Asking the lecturers (of other programs) on this topic it was assured that this can be considered as their standard way in their current teaching.

As a next step eLearning (or better to say blended learning) should be considered to be implemented. Running a "Computer Sciences" program is offering best conditions to implement the required hard- and software and to provide the skills and competencies. Introducing eLearning requires proper planning, i.e. by developing an eLearning concept which has to address didactical, organizational, technological, economical aspects and by training lecturers. Also it requires to engage a person in charge for the administration of a Learning Management Server (LMS).

Running a dedicated Learning Management Server (e.g. Moodle) allows for more efficient use of resources (flexibility of space and time, content delivery, assessments, testing, ...) and offers a diversity of didactic approaches. The general limitations when it comes to eLearning - requirement of computer literacy and access to equipment - is not expected to be an issue at the College.

As additional benefit the study program can be easily enriched with international contributions by video conferencing or webinars thus improving the internationalization aspect without running into troubles with visa issues. The implementation of a Learning Management Server also offers room for research activities for both staff and students. The availability of an in-house server providing advanced learning and teaching functionalities could also replace the current praxis of using cloud-based services which are not always meeting the conditions of academic demands.

Recommendation 4:
- *Develop an eLearning concept addressing didactical, organizational, technological, economical aspects.*
- *Implement a Learning Management System (e.g. the open source LMS Moodle which is being used by very many universities worldwide) allowing for introducing the benefits of eLearning (blended learning) and thus also introducing contemporary teaching methods.*
- *Implement eLearning at the Computer Sciences program and act as a pioneer for expanding eLearning to the other programs of the College.*

STUDENTS

The admission of students should be well justified in terms of numbers and pre-qualifications. Students of Computer Sciences programs have to meet increased requirements when it comes

to Mathematics and English. While this is limiting the number of candidates it can be seen as relief in achieving the intended academic standard.

Running a new program with special requirements on equipment and infrastructure might lead to unexpected challenges which also suggests limiting the number of students to the lower end of the intake capacity. The currently available equipment, namely the number of computers in one classroom is about +25. The envisaged number of 100 study places does not seem to stand on solid ground and should be decreased considerably.

Recommendation 5:
- *Ensure that only students are admitted who have sufficient command of English and Mathematics.*
- *Limit the number of study places to the number of workstations currently available in a classroom.*

2 Staff

The availability of staff in terms of competence and number is a critical issue. As mentioned above the staff list of the previous SER, which was clearly inappropriate, is being ignored. Instead it was agreed that the staff list of the updated SER would be considered. Yet, in addition to that version another updated staff list has been provided as additional document on March 30, 2015 (*List of academic staff for Computer Sciences academic program*). Finally, this is the staff list which serves as the evaluation basis. However, the ET has been strictly advised only to consider those personnel which has been approved by KAA regulations (*KAA List of academic staff Pjeter Budi College 2015_2*, provided March 24, 2015). According to that regulation the ET was not in the position to acknowledge four persons in that list (Arben Ahmeti, Arianit Maraj, Luan Gara, Muharrem Shefkiu).

As a result, 16 out of 39 subjects of the curriculum (*SER March 2015*, pp17) have not been allocated eligible lecturers. Most disturbingly, the person in charge for the study program, Dr. Arianit Maraj, is not included in this list of eligible lecturers. Nor the second person with a master degree in computer sciences, Arben Ahmeti, is included. Both of them are the only ones who hold a degree in computer sciences and play a predominant role being responsible for ten relevant subjects. Consequently, it has to be stated that the program lacks of sufficient qualified staff.

The figures on "Permanent scientific/artistic personnel (number per staff category)" given in the table on the academic program (*SER Oct. 31, 2014*, p14 resp. *SER March 2015*, p15) could not be verified. Instead of 8PhD and 4MA the documents (updated staff list, adjusted to KAA regulations) reveal a significant divergence of 3PhD and 8MA instead, six of whom holding only a pre-contract, five holding a permanent contract.

Recommendation 6:

- *Make sure that a sufficient number of permanent staff is available for the program.*
- *Make sure that qualified staff is put in charge for taking responsibility of the program.*
- *Make sure that all staff in charge for the program have contracts drawn up in due form.*

3 Research and International Co-operation

According to the SER the College has established a dedicated regulation for scientific research addressing both staff and students. According to the development plan it is intended to increase international cooperation and strengthen scientific research within the College. As for now, there are no research activities planned in the frame of the Computer Science program and understandably there are no publications nor research activities presented from staff in charge for that program. Nonetheless, some 22k EUR for the period 2014-2018 are planned to be invested in library resources, publications and conferences.

Cooperation with other institutions, national and international ones, is very important. Building up international cooperation naturally takes time and effort and cannot be expected from staff that starts teaching new courses. The more it makes sense to develop plans at that stage.

Recommendation 7:
> *Start with developing a long-term strategic plan for focus research areas, funded projects acquisition, and international cooperation in the domain of computer sciences. Also have in mind the involvement of students.*

4 Finances and Infrastructure/Space and Equipment

According to the SER the College stands on solid ground concerning finances in general terms. Concerning the budget plan for the Computer Sciences program it is planned to generate some 400k EUR within three years. However, this is based on the assumption of admitting 370 students until 2017 which does not seem to be a realistic assumption. Concerning the expenses there are no particular plans - all expenses are equally distributed among all programs - to invest in dedicated hard- and software which is questionable.

The current IT infrastructure seems to be managed properly providing LAN and WIFI access for staff and students across the classrooms, labs and offices. The computers are running on current operating systems and are up to date, except for the need of RAM expansion.

Efforts have been made to provide access to on-line services so the shortcoming of the library is not an issue for the students. Also students have access to the public library nearby.

Undoubtedly, specific software will be needed which has to be specified including cost statements for licenses by the subject matter experts. In "Computer Science" licensing of software should be handled with specific care in order to communicate high ethical standards to the students. Respecting copyright should play an important role giving the College a chance to set a pattern for high ethical standards.

Recommendation 8:
- *In order to provide the necessary hard- and software for the specific requirements of the program the budget plan should be adjusted. Expenses might have to be increased and revenues from student fees decreased.*
- *Subject matter experts need to specify the kind of software and services and expenses needed to run the program.*
- *Make sure to license the software in use in order to raise copyright awareness and to set ethical standards.*

5 Quality Management

According to the SER he College has introduced a quality assurance system for teaching, research and services. The regulations, procedures and instruments for quality assurance have been described extensively. Still, the person in charge for the Computer Science program should be named.

Recommendation 9:
> *Name the quality manager and the person in charge for quality management with respect to the Computer Science program.*

6 Conclusion

Our recommendations focus on the issue of implementing a new program while lacking a strategic approach and facing ambiguities concerning staff. Basically, offering an IT-related study program like this Computer Sciences program is to be appreciated. Yet, key conditions like qualified permanent staff, manageable number of students, and availability of specified hard- and software resources have to be fulfilled beyond doubt. Accordingly, we only propose

to accredit the Computer Sciences program on condition that the key recommendations are respected.

DI Dr. Erwin Bratengeyer
Prof. Dr. Johann Günther
Vienna, April 10, 2015