

**External evaluation report for:**

**FIRST-CYCLE ENVIRONMENTAL PROTECTION ENGINEERING STUDY PROGRAMME AT FACULTY OF MINING UNIVERSITY OF BANJA LUKA**

**Number: 1/01-04-1-547-13/22**

**Date: March, 03, 2023**

**Dates of visit: February 2-3 2023**

**Location: Faculty of Mining at the University of Banja Luka based in Prijedor**

**Review panel:**

**Asst. Prof. Maja Petrovic, PhD**, representative of the academic community, chairman

**Prof. Aleksandar Jovovic, PhD**, representative of the academic community, member

**Marinko Bogojevic**, representative of business and practice, member and

**Andrej Zuza**, student representative, member.

**Coordinator: Jugoslav Vuk Tepic, PhD**

**External evaluation criteria for the purpose of initial accreditation:** Standards for initial accreditation of higher education institutions and study programs (AVORS, 2021), Rulebook on initial accreditation of higher education institutions and study programs of Republika Srpska (AVORS, 2021), Instructions for preparation of documentation for initial accreditation of higher education institutions and study programs (AVORS, 2021).

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## 1. Application

### 1.1. Information about the initial accreditation process

Faculty of Mining at the University of Banja Luka applied for to the Ministry of Scientific and Technological Development, Higher Education and Information Society of the Republic of Srpska (hereinafter the Ministry). After reviewing the submitted documentation and concluding that the application was valid, the Ministry requested the opinion of the Council for Higher Education of the Republika Srpska (hereinafter: the Council) the issuance of a licence for the first-cycle Environmental protection engineering study program. After reviewing the submitted documentation and concluding that the application was valid, by Act No. 19.040/020-3707-46/20 from November 30, 2022, the Ministry requested the opinion of the Council for Higher Education of the Republika Srpska (hereinafter: the Council). After obtaining a positive opinion of the Council, the Ministry submitted to the Agency for Higher Education of Republika Srpska (hereinafter: the Agency) a request for external evaluation for initial accreditation of Enviromental protection engineering study program which was received on December 7, 2022, and registered under protocol number 1/01-04-1-547/22. The Director of the Agency appointed Jugoslav Vuk Tepić, PhD, as the external evaluation procedure's coordinator for initial accreditation by Decision No. 1/01-04-1-547-1/22 from December 8, 2022.

On December 14, 2022, the Agency signed a contract with the University of Banja Luka for external evaluation services for initial accreditation of the Enviromental protection engineering study program under number 1/01-04-1-547-3/22. The Review Panel for external evaluation was appointed from the List of reviewers of the Agency by the Decision on the appointment of the Review Panel number 1/01-04-1-547-2/22 from December 14, 2022. After concluding the contract with the members of the Review Panel and signing a statement on the absence of conflict of interest all of them were individually provided with data for logging into the Agency's information system where the documentation proving the fulfilment of the standards for initial accreditation is posted and a checklist was set up in which the members of the Review Panel entered all preliminary findings and observations and thus prepared for a visit to the Faculty of Mining.

The process coordinator using official correspondence informed the members of the Review Panel about the external evaluation of study program the Environmental protection engineering the technical and organizational details of the visit, the time frame for all phases of external evaluation as well as the recommended work methods for efficient and timely execution of obligations. Also, the tentative date for the visit to the higher education institution was agreed upon, and the way in which the members of the Panel of Review prepare all the steps during the upcoming cooperation.

The Review Panel analyzed the submitted documentation, prepared for the visit, and through direct inspection during the visit to the Faculty of Mining of the University of Banja Luka in the period from February 1st until March 3rd 2023, checked the validity of the evidence on the fulfillment of the requirements of the Standard for initial accreditation. The day before visiting, February 1st, 2023. year, a preparatory meeting of the Review Panel was held virtually, where the working method was agreed upon. On the first day of the visit, the Review Panel held another meeting immediately before the visit and specified the division of activities during the visit. During the visit, the Review Panel spoke with the management of the Faculty of Mining, the head of the Environmental Protection Engineering study program, and academic and non-academic staff related to all aspects of the realization of the study program. Followed by a tour of the premises and resources of the Faculty, which will be used for the implementation of the study program. On the second day of the visit, February 2nd, 2023, the Review Panel presented a preliminary report to the management of the Faculty of Mining, without communicating the outcome of the external evaluation for the purpose of initial accreditation and without the opportunity for the Faculty representative to comment on the preliminary report.

## 2. External evaluation

### 2.1 Previous activities

During the preparation for the visit to the Faculty of Mining at the University of Banja Luka, the Review Panel analyzed the submitted documentation, entered observations, remarks and comments into the Agency's system, and prepared a list of questions to be asked during the visit.

Acting by the agreed scope of work according to individual contracts, the Review Panel made complete preparations for the visit to the Faculty (recorded on the individual accounts of the reviewers in the Agency's system, subject first-cycle Environmental Protection Engineering study program at the Faculty of Mining, University of Banja Luka) for external evaluation in the process of initial accreditation, in the agreed period, February 1 and 3, 2022. Before the start of the visit, on February 2, 2022, a working meeting of the Review Panel was held and the details of the visit were agreed upon. The formal aspects of the visit have been coordinated with the Faculty of Mining and listed in the appropriate form, under the title of the document Work plan of the Review Panel and program of the visit to the University of Banja Luka, Environmental Protection Engineering study program.

Also, in the Agency's system, a report on the review of study program was prepared and it was integrated into the final report on external evaluation for the purpose of initial accreditation of the study program.

### 2.2 On-site visit to the higher education institution

On the first day of the visit, in the introductory interview and special interviews, the Review Panel spoke with the management of the Faculty of Mining, led by the head of the Environmental Protection Engineering study program, and academic and non-academic staff who will be engaged in the implementation of the study program. Details about the participants of all interviews are part of the documentation of the subject of external evaluation and are available at the Agency. All aspects of organization, management and provision of the necessary resources and finances for the implementation of the study program were discussed with the management of the faculty, which would be in accordance with modern trends in the field of environmental protection, with special emphasis on the need for cooperation with the labor market, i.e. with institutions, companies and organizations that have a need for the subject profile of graduates. In addition, members of the Review Panel from among the academic community presented constructive proposals and advice to the teaching staff and management of the study program on the specific implementation of the planned teaching contents. Followed by a tour of the premises and resources of the Faculty, which will be used for the implementation of the study program from the classrooms, the appropriate offices, the library, the space for student organizations.

During the final speech to the planned head of the Environmental Protection Engineering study program, it was agreed that the evidence of compliance with the standards, technical and content errors and oversights that were

additionally requested by the Review Panel and prepared and shown during the visit, will be placed in the information system of the Agency for Higher Education of the Republic Srpska within seven working days, which was done within the given time frame.

After uploading documents with updated data, the Review Panel on March 3, 2023 prepared the Final Report 1/01-04-1-547-13/22, in which the opinion of the Review Panel was given that the study program Environmental Protection Engineering should be granted a work permit

<b>Information about higher education institution:</b>	
<b>Name, address and e-mail address of the institution</b>	Univrsity of Banja Luka Bulevar vojvode Petra Bojovića 1A 78000 Banja Luka info@unibl.org
<b>Web address</b>	www.unibl.org
<b>Name, number and date of the founding act</b>	01-577/07 Law on Amendments to the Law on Higher Education March 29, 2007
<b>Tax Identification Number (PIB)</b>	401017720006
<b>The registration number assigned by the Republic of Srpska Institute of Statistics</b>	01040251
<b>Name, surname and address (name and headquarters) of the founder</b>	Republic of Srpska
<b>Number and date of the decision on the appointment of the person authorized to represent</b>	02/04-3.733-1/18 from March 20, 2018
<b>Visiting organizational units and responsible persons</b>	The Faculty of Mining at the University of Banja Luka
<b>Contact person</b>	Svjetlana Sredic
<b>Phone number</b>	052241660

<b>Study program that applied for accreditation</b>		
<b>Name of the study program</b>	<b>Study level</b>	<b>Name (s) of exit qualifications</b>
Environmental Protection Engineering 240 ECTS	First cycle	Graduate environmental protection engineer

## THE HIGHER EDUCATION INSTITUTION

The university and college approach the initial accreditation simultaneously as an institution and study programs, which it intends to carry out. Total resources are calculated at the institution level.

### Information about the higher education institution

*Briefly describe the most important characteristics, on no more than two pages, and thus provide an overview describing the advantages compared to existing higher education institutions, fundamental values and the direction in which the higher education institution plans to develop. In this chapter, recent changes, applied innovative solutions or anything else that is important, but not explicitly required by the standards, can be listed.*

In the section Information about the higher education institution, very precise data are given regarding the establishment of the University in Banja Luka. It is stated that when the University was founded, there were five faculties: Electrical Engineering, Technology, Mechanical Engineering, Law and Economics and three higher schools. The Faculty of Medicine was founded in 1978. Other faculties were founded later: Agricultural and Forestry in 1992, Philosophy in 1994, Architecture, Civil Engineering and Geodesy in 1995, Natural Sciences and Mathematics in 1996, Academy of Arts in 1999, Faculty of Physical Education and Sports in 2001, Philology, Faculty of Political Science and Faculty of Mining in 2009, and Faculty of Security Science in 2017. Today, the University of Banja Luka has 17 faculties and one Institute as equal members of the University. Teaching is conducted in 64 study programs of the first cycle of studies, 71 programs of the second cycle, and 12 study programs of the third cycle of studies. Since 2008, the University of Banja Luka has been integrated, with faculties as organizational units. The Management Board, the Senate and the Rector manage the work of the University. From the school year 2007/2008. At the University of Banja Luka, the implementation of the Bologna process began in all study programs, although at some faculties the implementation of the Bologna reform began earlier (2004/2005). The evolution that the University is going through since the beginning of the application of the Bologna process takes place in the scenario of gradual convergence with the European area of higher education. Then it is stated in the Development Strategy of the University of Banja Luka for the period 2017-2025, key accents were placed on: scientific and research work, quality of the teaching process, student-oriented education ("student in the center"), internationalization, transfer of knowledge and technology, functional integration. Within these allegations about quality, it should be noted that 16 study programs of the first cycle are accredited at the University of Banja Luka, including the Mining study program. The University of Banja Luka is a member of the European University Association (EUA) and a signatory of the Magna Charta Universitatum.

### Information about the study programme

*On no more than two pages, give an overview in which the advantages, fundamental values and the direction in which the study program is planned to be developed are described. In this chapter, specific data related to the planned development of the study program can be stated, which on the oneway results from the plans for the institution as a whole, and on the other way shows the directions and method of achieving goals at the level of the organizational unit, especially if it is not required by the standards.*

Decisions entrusting the Faculty of Mining with narrower scientific fields are listed: surface exploitation of mineral resources, underground exploitation of mineral resources, preparation of mineral resources, exploitation of fluids, environmental protection technology, engineering geology and geophysics, exploration of mineral deposits and mine geology. It is also pointed out that this decision somehow "obliges" the Faculty of Mining to take care of the education and development of these scientific fields within the University of Banja Luka and for the needs of the Republika Srpska. It is further stated that in accordance with the mission of the

Faculty, the Faculty of Mining should initiate and organize the training of personnel in the field of environmental protection engineering, which can be achieved relatively easily and with relatively small financial investments. The description of the planned study program states the following: "Environmental protection engineering is an interdisciplinary applied engineering science that integrates natural sciences on the one hand - physics, chemistry, mathematics, geology and modern technologies in the study of processes on Earth, the environment and applied engineering sciences that the largest number of human activities and production processes are managed by defining and controlling them. This study program therefore unites the areas of technical and natural sciences in an original way in accordance with the concept of acquiring applied knowledge in the form and level observed in a certain number of European universities and colleges as well as universities in the surrounding area. By choosing certain courses, students, with the help of teachers and associates/assistants, design a plan and program in order to meet specific career goals. Environmental protection engineering is an interdisciplinary study program within the Faculty of Mining, where students obtain the title of graduate engineer in environmental protection of 240 ECTS. Research and teaching interests include almost all aspects of understanding production processes from the field of construction, mechanical and energy production processes, various technologies of production processes, mining exploitation of mineral raw materials, as well as their management from the aspect of environmental protection. Students are taught the basics of natural sciences, technical sciences and disciplines in order to adequately master the engineering aspects of environmental protection along with the basics of traditional engineering. This program focuses on many important aspects of environmental protection in energy, water supply, mining, natural disaster management, and government oversight. When creating the curriculum, the basic principles of the Bologna process were respected, which is reflected in the following: Transparency of the structure of the curriculum in which the teaching contents of all subjects are connected as a whole in order to achieve the goal of providing adequate learning outcomes; The classes integrate classic lectures with practical activities in the form of field and cabinet-laboratory classes; The greater efficiency of the study process is made possible by the fact that all courses are one-semester and that the student progression system is dynamic, so depending on the course, 30-50% of the student's results are obtained in pre-examination duties (exercises, seminar papers, colloquiums, tests, fieldwork, etc. ). The role of students in achieving the goals of the study program is multiple. The organization of the curriculum enables students to independently create their own educational profile not only through choosing optional subjects, but also through inclusion in the internal evaluation of the program, the quality of teachers and the teaching process, and thus also in initiating changes in the study program and teaching methods. Elective courses are grouped according to areas of interest that focus on certain aspects of environmental protection, that is, timely detection and determination of all potential emissions and emissions of harmful effects of human activities and production processes on the environment: Process systems and plants; Mechanical engineering in environmental engineering, Management of man-made raw materials; Construction and environmental protection, Engineering of energy plants; Procedures and plants for water treatment, Impact of mining exploitation on the environment, Management of solid waste and industrial landfills, Stability and rehabilitation of slopes; Hazards in the environment, etc. The scientific field to which this study program belongs - According to the Decision on the formation of departments of the University of Banja Luka and the schedule of subjects in those departments, number 05-4153-XIII-2/08, i.e. the Rulebook on scientific and artistic fields, fields and narrower fields (Official Gazette of the RS number 58/07) and the Decision on the registration of the Faculty/Academy of Arts and study programs of the University of Banja Luka for scientific and artistic fields and narrower scientific and artistic fields - Decision of the Senate of the University of Banja Luka, the study program of the first cycle Environmental Protection Engineering belongs to the Scientific Field "Mining and Geological Engineering".



## STANDARD 1. GOALS AND CORE TASKS OF THE HIGHER EDUCATION INSTITUTION

1. Goals and core tasks of the higher education institution	Reference
<ul style="list-style-type: none"> <li>• <i>Provide a link to the part of the Elaborate that refers to the reasons for the establishment, goals and tasks</i></li> </ul>	<p><i>Guideline 1.1.</i></p>
<p>A link has been posted to the Elaborate on the justification of launching the study program ENVIRONMENTAL PROTECTION ENGINEERING, May 2022.</p> <p>The reasons for launching this study program are listed in several places in the Elaborate, the justification is confirmed by the Opinion of the Council for the Development of Higher Education, the obligation to examine the labor market is included, while the goals and objectives are related to the development strategy of the higher education institution. The main goal of SP Environmental Protection Engineering (first cycle) is to provide students with basic theoretical and practical knowledge from basic scientific and classical engineering disciplines and to produce an expert who is skilled in solving environmental protection problems, primarily in the processes of managing mineral raw materials, but also in more technical disciplines. The goals of the study program are to enable students who complete this study program to work in the field of environmental protection and to achieve competencies and academic knowledge and skills for recognizing, managing, controlling and reducing hazards and risks in the environment. The main task of the study program is the formation of experts, whereby students who complete the Environmental Engineering study program can find employment, in addition to mining systems, in other economic systems (thermal energy and other mechanical plants, waste management and disposal facilities, various fields of research or engineering and consulting, in teaching but also in government agencies).</p>	
<ul style="list-style-type: none"> <li>• <i>Provide a link to the higher education institution's strategy document and documents that regulate the manner of its adoption and revision (Statute, rulebook, procedure).</i></li> </ul>	<p><i>Guideline 1.1.</i></p>
<p>A link has been posted to the Statute of the University of Banja Luka (published on July 7, 2022) and the Development Strategy of the University of Banja Luka for the period 2017 to 2025, June 2017.</p> <p>The University of Banja Luka has set its goals and basic tasks, which are fully in line with the law. The document Development Strategy of the University of Banja Luka for the period 2017-2025 is attached. where the situation at the University of Banja Luka is described in great detail, as well as the vision, mission, key values and strategic goals of the University's development. The development strategy is given very precisely and in detail with numerous graphic attachments.</p>	
<ul style="list-style-type: none"> <li>• <i>Provide a link to the part of the proposed Statute which describes the core tasks of the higher education institution and the decision of the authority that adopted it.</i></li> </ul>	<p><i>Guideline 1.2.</i></p>
<p>A link has been posted to the Statute of the University of Banja Luka from July 2022: Article 2, Article 3, Article 14, Page 52; Consent of the Ministry of Scientific and Technological Development, Higher Education and Information Society of the RS on the Proposal for the Statute of the University of Banja Luka, dated June 22, 2022. It is evident from the above documents that the University of Banja Luka: 1) combines educational and scientific research, professional, i.e. artistic work, and projects of importance for the social community as three components of a unique process of higher education, 2) realizes at least ten different academic study programs from at least four fields of education and 3) performs academic studies in all three cycles."</p>	

The Ministry of Scientific and Technological Development, Higher Education and Information Society of the RS gave its consent to the Proposed Statute of the University of Banja Luka, so there are legal grounds for the validity of the above-mentioned document.

- *Provide a link to the institution's documents showing the goals of the higher education institution which are concrete, achievable and measurable (strategy of the higher education institution/study program).*

*Guideline 1.3. and 1.4.*

The document Strategy for the Development of the University of Banja Luka for the period 2017 to 2025, June 2017, and the Statute of the University of Banja Luka, July 2022, are linked.

The concreteness, feasibility and measurability of the goals emerge from the available documentation. The goals are set responsibly and reasonably, taking into account real academic, material and other resources, market indicators and the wishes and plans of future academics. The Environmental Protection Engineering study program, with an emphasis on personnel education, is designed so that, in addition to focusing on the field of mining, it is at the same time oriented more broadly towards other areas in which environmental protection is foreseen.

- *Provide a link to the part of the Elaborate that refers to the analysis of the labour market, i.e. the consultations with interested parties that preceded the preparation of these documents.*

*Guideline 1.1.*

The Elaborate on the justification of starting the study program ENVIRONMENTAL PROTECTION ENGINEERING, May 2022, is linked.

In the Elaborate, the potential needs for a profile that would be trained at the Faculty of Mining in the study program Environmental Protection Engineering are listed, given that the staff currently performing work in that area in the environment is not adequate in terms of meeting all the required competencies prescribed by law. The Technical Environmental Institute, d.o.o., among others, is listed as potentially interested in support for the establishment of this study program. Banja Luka; Institute of Civil Engineering "IG" Banja Luka; Fund for environmental protection and energy efficiency of the Republic of Srpska; PROTEHNIK, Technical Development Center, East Sarajevo; Iron ore mines "Ljubija" A.D. Prijedor: Prijedor Mining Institute.

- *Provide a link to the document that regulates the procedure for adopting, developing and revising study programs.*

*Guideline 1.5.*

In the valid Instruction for the development and improvement of study programs, University of Banja Luka, September 2011, which is listed as a reference document, it is explained in detail how the adoption, development and revision of study programs at the University of Banja Luka can be carried out. The Faculty of Mining, respecting the procedure, in accordance with the existing laws, which are stated in the Instructions, prepared and carried out the procedure of preparation of documentation that proves the fulfillment of the standards for initial accreditation, that is, the fulfillment of the conditions for obtaining a work permit.

### **STANDARD 1. Goals and core tasks of the higher education institution**

#### **STRENGTHS:**

The needs for the introduction of a new study program are planned in the documents of the long-term strategy of the Faculty of Mining of the University of Banja Luka and in accordance with the needs of the education of competent personnel who will be able to fulfill the tasks that will arise in the economy and in all areas/spheres of society in which a long-term need is expressed for environmental protection.

**WEAKNESSES:**

Although there are certain uncertainties in the concrete ability of the market to absorb the staff that will be educated in this field of study, with the realistically planned number of student enrollments, this shortcoming does not represent an excluding factor when evaluating this standard.

<b>REQUIREMENTS FULFILLMENT LEVEL</b>	<b>III</b>
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**STANDARD 2. THE INTERNAL QUALITY ASSURANCE MECHANISMS**

2. The internal quality assurance mechanisms	Reference
<ul style="list-style-type: none"> <li>Provide a link to the document(s) that describe the structure, processes, procedures and resources of the Quality Assurance System of the Higher Education Institution.</li> </ul>	Guideline 2.1.
<p>Point 13 of the Elaborate on the justification of starting the study program ENVIRONMENTAL PROTECTION ENGINEERING from May 2022 describes the structure, processes, procedures and resources of the Quality Assurance System of the higher education institution, within which it refers to: The Development Strategy of the University in Banja Luka for the period 2017 to 2025 , from June 2017, the Procedure for Monitoring and Improving the Quality of the University of Banja Luka from July 2012 and the Form for Monitoring the Quality of the University of Banja Luka from July 2012. The highest formal act, the Statute of the University of Banja Luka, established the basic elements of the quality system in chapter XI, ASSURANCE OF THE QUALITY OF STUDY PROGRAMS, TEACHING AND WORKING CONDITIONS, which includes articles 152 to 158. Lower acts were also drafted to regulate the quality system: Instructions for drafting and improvement of study programs from September 2011, Strategy for quality assurance of the University of Banja Luka (July 2012), Procedure for monitoring and improvement of quality (July 2012), Forms for monitoring quality and Rulebook on surveying students on the quality of teaching process (February 11, 2015).</p> <p>When asked if there are completed forms for the aforementioned surveys, given that there are defined forms for quality monitoring and a plan for surveying students on the quality of the teaching process, the answer was that examples of completed forms and surveys exist in the information system of the Faculty of Mining.</p>	
<ul style="list-style-type: none"> <li>Provide a link to the documents that describe the establishment, responsibilities and powers of the higher education institution's formal body(s) for quality assurance (Quality Assurance Strategy or Policy).</li> </ul>	Guideline 2.2.
<p>The following documents of the University of Banja Luka were made available for inspection: STRATEGY FOR QUALITY ASSURANCE Banja Luka, July 2012, PROCEDURE FOR MONITORING AND IMPROVEMENT OF QUALITY, July 2012, FORMS FOR MONITORING QUALITY, July 2012. Every year, the teaching staff of the Faculty of Mining comes up with Faculty Work Plans for the following year and prepares Work Reports from the previous year. In the aforementioned documents, the current situation is analyzed every year, the achievement of goals is monitored, and suggestions are made for improving quality. The links to the documents are listed: Report from 2021 and Plan for 2022.</p>	
<ul style="list-style-type: none"> <li>Provide a list of members of the quality assurance committee, ie members of the Quality Assurance Board or Committee (if any).</li> </ul>	Guideline 2.2.

At the Faculty of Mining, a coordinator for quality assurance was appointed (from the academic staff) - Jelena Trivan, MSc, senior assistant. The main task of the coordinator is to provide assistance in the implementation of the quality policy by collecting the values of key performance indicators, proposing activities for quality improvement and supporting the implementation of all other quality assurance processes at the faculty. In addition, the Faculty forms a quality assurance team of 6 members from teaching and administrative staff and students (Decision of the Faculty of Mining's Teaching and Research Council, number: 21/3.381-1/21, dated June 17, 2021). The task of the team is systematic and continuous monitoring and periodic quality checks of all activities (analysis of surveys, preparation of self-evaluation reports, etc.). The team consists of: Prof. Aleksej Milosevic, PhD; Prof. Sveltana Sredic, PhD; Ljubica Figun, MSc; Jelena Trivan, MSc, senior assistant; Radenko Mikanović, professional associate; Dobrila Trivić, student affairs officer and Mirjana Komosar, student.

### STANDARD 2. The internal quality assurance mechanisms

#### STRENGTHS:

Quality assurance standards are met and the structure, processes, procedures and resources used to ensure quality are clearly stated.

#### WEAKNESSES:

No deviations from the requirements prescribed by this standard were observed.

#### REQUIREMENTS FULFILLMENT LEVEL

III

### STANDARD 3. THE ORGANISATION OF HIGHER EDUCATION INSTITUTION

3. The organisation of higher education institution	Reference
<ul style="list-style-type: none"> <li>Provide a link to the proposal for an act on the organization and systematization of workplaces.</li> </ul>	Guideline.1.
Like other members of the University, the Faculty of Mining legally refers to the Rulebook on the internal organization and systematization of workplaces at the University of Banja Luka, September 2022.	
<ul style="list-style-type: none"> <li>Provide links to decisions on the appointment of temporary management: Board of Directors, senate and acting rector or director.</li> </ul>	Guideline 3.1.
Administration and professional services - Since 2007, the University of Banja Luka has been integrated, with faculties as organizational units. The work of the University is managed by the Board of Directors, the Senate and the Rector. The University has a vice-rector for teaching and student affairs, a vice-rector for scientific research and development, a vice-rector for international and inter-university cooperation, and a vice-rector for human and material resources. The university has a general secretary and a financial director. The seat of all administrative and administrative services of the University is in the Rectorate.	
<ul style="list-style-type: none"> <li>Provide evidence for the activities of temporary management, adopted acts, curricula and other documentation for initial accreditation.</li> </ul>	Guideline 3.2.
The Faculty of Mining submitted the linked documents: Law on Higher Education (Official Gazette of the Republic of Srpska, no. 67/20); Law on scientific research activity and technological development; Law on Titles Obtained Upon Completion of Higher Education; Law on Amendments to the Law on Titles Obtained Upon Completion of Higher Education; Law on student organization; Rulebook on the work of the University of Banja Luka, September	

26, 2022; Rulebook on the internal organization and systematization of workplaces at the University of Banja Luka, September 26, 2022; Point 4.1 of the Elaborate on the justification of starting the study program ENVIRONMENTAL PROTECTION ENGINEERING from May 2022 - Curriculum of the study program, Annex 8 - Course code book, Course book. The committee of reviewers noted that the documents required to prove the fulfillment of this standard were submitted.

### STANDARD 3. The organisation of the higher education institution

#### STRENGTHS:

Attached are the evidence for adopted acts, curricula and other documentation for initial accreditation.

#### WEAKNESSES:

No deviations from the requirements prescribed by this standard were observed.

#### REQUIREMENTS FULFILLMENT LEVEL

III

## STANDARD 4. STUDIES

4. Studies	Reference
<ul style="list-style-type: none"> <li>State the name of the study program, type and degree of study. Submit the entire study program in the manner described in the introductory part</li> </ul>	Guideline 4.1.
<p>The name of the study program, type and degree of study are listed: Study program Environmental Protection Engineering, first cycle of academic studies, 240 ECTS, regular studies, 8 semesters.</p>	
<ul style="list-style-type: none"> <li>Provide a link to a document that clearly defines the goals, structure and content of the study program, the policy and procedure of student enrollment, learning methods, knowledge assessment methods, learning outcomes and competencies that students acquire.</li> </ul>	Guideline 4.1.1.
<p>Appropriate documentation has been submitted. To the statement of the Review Panel that part of the objective states "The basic task of the study program is to create experts, whereby students who complete the study program Environmental Protection Engineering can find employment in industry, various fields of research or engineering and consulting, in teaching but also in government agencies" and considering that the study program was developed in the RF, the stated goal should be somewhat corrected and directed more towards the mining and geological profession. In accordance with the agreement, the recommended statements were added to the disputed goal.</p> <p>The delivered course book shows the content of the study program, learning methods (forms of teaching), the way of checking knowledge, learning outcomes and competencies that students acquire. The remarks of the Review Panel on the mentioned literature for the subject Basics of water protection have been corrected. The contents of the course Solid waste management and industrial landfills were adjusted with the goals and outcomes of the course. The course book has been supplemented and edited, as well as the enrollment policy and procedure. Learning methods were additionally elaborated.</p>	
<ul style="list-style-type: none"> <li>Provide a link to the documents that regulate the procedures for the development of study programs (adopting, amending and supplementing study programs, procedures for reviewing and</li> </ul>	Guideline 4.1.1.

<p><i>innovating study programs, procedures for ensuring the quality of study programs, consultations with interested parties and the labour market)</i></p>	
<p>According to the Guidelines for developing and improving study programs, when determining goals, it is necessary to take into account: Development forecasts in a given area; Country development strategies; Requests of ministries; Chamber requirements; professional associations, etc.; Opinions of teachers and students; Opinions of experts.</p> <p>The study program was developed in accordance with the current regulations of the Republic of Srpska, but much more in accordance with the needs of the labor market in the Republic of Srpska. In this case, the study program is predominantly the result of market analysis and requirements, and it is designed according to similar study programs in the region, and similar study programs in the world.</p>	
<ul style="list-style-type: none"> <li><i>Provide proof of compliance of the study program with the basic quality standards of the institution, as well as proof of its compliance with other study programs that the institution runs.</i></li> </ul>	<p><i>Guideline 4.1.2.</i></p>
<p>As proof of the compliance of the study program with the basic quality standards of the institution and proof of its compliance with other study programs that the institution carries out, the Statute R is stated Faculty of Arts, University of Banja Luka, October 12, 2012 - The Statute of the Institution only partially shows compliance with the basic quality standards of the institution and other study programs of the Institution, that compliance alone cannot be considered sufficient, so an additional explanation was included in the Elaborate on the justification of starting the study of the Environmental Protection Engineering program.</p>	
<ul style="list-style-type: none"> <li><i>Provide a link to the document that defines the objectives of the study programs and prove the compliance of the study program with this document.</i></li> </ul>	<p><i>Guideline 4.1.3.</i></p>
<p>Submitted Elaborate on the justification of starting the study program ENVIRONMENTAL PROTECTION ENGINEERING from May 2022 (3.1. Purpose, goals and basic tasks of the study program) as the main goal, states the education of experts with "sufficiently necessary" knowledge from "basic scientific disciplines", knowledge and skills in "classical engineering disciplines" and "professional scientific disciplines" in order to be able to work in the field of environmental protection - alignment is not clearly identified and the objectives are general and comprehensive. Following the committee's suggestion, given that the study program was developed at the Faculty of Mining, the goal was corrected and directed towards the mining and geology profession, which shows a better alignment of the study program and the Elaborate.</p>	
<ul style="list-style-type: none"> <li><i>Provide a link to the document that prescribes the method of awarding ECTS points to individual courses (Regulations on the formation of ECTS points, determining the course code and the course syllabus).</i></li> </ul>	<p><i>Guideline 4.1.4.</i></p>
<p>In the curriculum, the subjects of the study program are classified by semesters and years of study (2 semesters per academic year), with assigned status (compulsory, elective, optional subject) and assigned ECTS points. At the University, in accordance with the Law, the Statute and the statute of the member University, three-year and four-year studies of the first cycle are conducted, valued at 180 ECTS points, or 240 ECTS points. Allocating credits to individual subjects is not only based on the number of hours of direct teaching, but also on the basis of the curriculum, i.e. the "importance" of the subject itself for the given qualification of graduate environmental protection engineer. The total time required to achieve the planned learning outcomes is observed: the number of hours of direct teaching, the time required for preparing for classes and preparing teaching assignments</p>	

(preparation and arrangement of materials from classes, exercises or practice; preparation of essays and seminar papers; practical work outside of class) in the curriculum, etc.) and the time needed to prepare for the exam and take the exam. In the Republika Srpska, the principle of a student's annual workload of 60 ECTS points, within a 40-hour work week, is a legal provision, and is in accordance with European regulations in this area. Starting from the academic calendar of the University, it is assumed that during the year students have 45 working weeks (2 semesters of 15 weeks of teaching and 15 weeks of work in the exam periods of January/February, April, June/July, September and October), which corresponds to the total working student workload of 1800 hours per year.

- *Provide a link to a document that indicates the compatibility of the study program with at least three study programs that are run at accredited higher education institutions in countries that are signatories to the Bologna Declaration (one of which is from Republika Srpska).*

*Guideline 4.1.5.*

A document indicating the compatibility of the study program with at least three study programs offered at accredited higher education institutions in countries signatory to the Bologna Declaration is available (Elaborate on the justification of starting the study program ENVIRONMENTAL ENGINEERING from May 2022). Institutions are listed: Faculty of Technical Sciences, Novi Sad, Republic of Serbia, Faculty of Mining and Geology, Belgrade, RS, University of Ljubljana, Slovenia, University of Zagreb, Croatia, and especially College of Engineering, Computing and Applied Sciences, ENVIRONMENTAL ENGINEERING THE UNIVERSITY OF OKLAHOMA / GALLOGLY COLLEGE OF ENGINEERING). Since there is no compatible study program in the Republic of Srpska, the possibility of educating students with a given qualification profile was highlighted, and in this sense, the consent of the Faculty of Mining and Geology of the University of Belgrade was obtained that students who study this program can have a full pass on the study program Environmental Protection Engineering and the possibility continuation of studies at that University, according to the ties between the Republic of Srpska and the Republic of Serbia. In this sense, the study program of the first cycle that can be an alternative is the Environmental Protection Engineering Study Program at the Faculty of Technical Sciences of the University of Novi Sad.

- *Provide a link to the document that defines the learning outcomes of the study program and explain how they were defined, and what activities preceded their definition.*

*Guideline 4.1.6. and 4.1.8.*

Learning outcomes are defined within each individual subject (Course book) with a special focus on the competencies of graduated students.

- *Provide a link to the matrix of the connection between the learning outcomes of individual courses and the learning outcomes of the study program*

*Guideline 4.1.7.*

The matrix of competences was developed based on the curriculum of compulsory and optional subjects, in which the learning outcomes and competences are listed for each subject. Upon completion of the program, the student will achieve competencies, which are listed in the Matrix of Competencies (Elaborate, Table 3), which students acquire by completing individual subjects.

- *Guideline 4.2. List the qualifications acquired by students of the study program.*

*Guideline 4.2.*

Chapter 3.7 of the Elaborate: The competencies of this study program were considered in accordance with the needs of today's society at the local and global level for the development of the profession of environmental

protection engineering that has the ability to adapt to the demands of a changing and dynamic market, and which is oriented towards a wide range of professional engagement opportunities. General competencies of students upon completion of this program: a) critical thinking ability - through the ability to analyze problems, synthesize solutions, b) communication skills - students who complete this study program can convey information, ideas, problems and solutions to professionals and the general public, c) skills learning - students who complete this study program have built learning skills and secured the fundamental knowledge they need to follow the teaching at higher levels of study (study programs of the second and third cycle) g) use of techniques, skills and modern programming tools in engineering practice, d) possessing the ability for teamwork and the development of professional ethics. Specific competencies of students upon completion of the program:

- understanding of production processes in the field of research, exploitation and preparation of mineral raw materials, construction, mechanical and energy production processes, and recognition of environmental risks and proposing environmental protection plans;
- participation in solving engineering problems in the field of environmental protection, - solve real problems from practice in companies that have the obligation to implement monitoring and environmental protection measures and lead services in charge of environmental protection - participate in tests, analyzes and research of locations, infrastructure, energy, production and construction facilities, - participate in the creation of documentation from the field of environmental protection - reports, studies for environmental impact assessment, strategic environmental impact assessments, etc.;
- participate in the collection, interpretation, communication and presentation of relevant results and data when examining and determining the level of soil, water and air pollution in the field of environmental protection - ability to analyze, interpret and generate new information - cooperate with other responsible persons on technical issues that concern project solutions for wastewater treatment, air protection, noise and vibration protection, etc.

- *Provide a link to the document that prescribes exit qualifications and evidence of compliance of exit qualifications with EQF.*

*Guideline 4.2.*

Chapter 3.7 of the Elaborate: The acquired qualification profile is aligned with the Framework for Higher Academic Qualifications in Bosnia and Herzegovina and level 6 of the European Qualifications Framework (EQF). The outcome of the learning process within the study program - the first cycle involves the acquisition of knowledge and skills for independent and responsible work in the field of environmental protection. Upon completion of the first cycle of studies, the student acquires skills, theoretical and practical knowledge for performing work in the field of environmental protection in order to solve real practical problems and to recognize and deal with environmental hazards during various human activities with environmental protection measures. Upon completion of this study program, the student can apply his knowledge within a wider interdisciplinary context (mining exploitation, use of natural resources, waste management, production processes, construction), which is related to environmental protection, and to further improve, according to acquired affinities, on related studies in Bosnia and Herzegovina and abroad. The knowledge, skills and competences acquired during the studies enable the student to solve problems that arise in the profession, practice and research, with the use of theoretical and professional literature according to the Bologna Qualification Framework (QF-EHEA). According to the Bologna qualification framework (QF\_EHEA), the basic goals and results of the education expected at the end of this study cycle are described through the study program descriptors of the first cycle.



<ul style="list-style-type: none"> <li>• <i>Provide a link to the learning outcomes and explain how the qualifications acquired by students are linked to the learning outcomes.</i></li> </ul>	<i>Guideline 4.2.</i>
<p>Through chapter 3.7 of the Elaborate, the learning outcomes of the study program are elaborated in more detail by linking competencies and learning outcomes through the specifics of the study program, the most important values, academic content, clearly defining the knowledge and skills that students acquire, the most important intellectual skills and the most useful practical skills (Elaborate, Table 3 - Matrix competence).</p>	
<p><b>STANDARD 4. Studies</b></p>	
<p><b>STRENGTHS:</b></p> <p>The objectives, structure and content of the study program, learning outcomes and competences that students acquire, as well as the policy and procedure of student enrollment, learning methods, and the way of checking knowledge are clearly defined. Proof of compliance of the study program with the institution's basic quality standards and proof of its compliance with other study programs offered by the institution is provided. The course description is shown for all courses, as well as the teaching load and the number of ECTS, the aim, the outcome of the course, methods, content, and literature. The way of checking knowledge and gaining points, i.e. evaluation, is defined. the ESPB number is defined. The number of hours of active teaching and lectures is appropriate, with approximately 50% each scheduled for lectures and exercises, with a separate part of the time for student work. It was shown that the faculty cooperates with companies, and this knowledge is used to improve and modernize study programs, which is very important for the development of teaching and the education of students.</p>	
<p><b>WEAKNESSES:</b></p> <p>No deviations from the requirements prescribed by this standard were observed.</p>	
<p><b>REQUIREMENTS FULFILLMENT LEVEL</b></p>	<p><b>III</b></p>

## STANDARD 5. SCIENTIFIC RESEARCH ACTIVITY

<p><b>5. Scientific research activity</b></p>	<p><b>Reference</b></p>
<ul style="list-style-type: none"> <li>• <i>Provide a link or submit a list of lecturers and associates who are involved in scientific research, professional and artistic projects and the results of scientific research and artistic activity of lecturers and associates in the last five years, including evidence of internationally recognized results in scientific research activity.</i></li> </ul>	<p><i>Guideline 5.1.</i></p>
<p>The list of teachers and collaborators who are involved in scientific research is available in the NIR IZZS Program. The number of internationally recognized research results is modest (several papers in international journals with an impact factor per year, participation in 3 international projects and two staff training in foreign institutions). There is a certain cooperation with economic organizations in the country and the surrounding area with several cooperation projects.</p> <p>The document Structure of the curriculum and program of IZZS and engaged teachers and associates contains information about teachers and associates who are involved in scientific research, professional and artistic projects and the results of scientific research and artistic work of teachers and associates in the last five years, including evidence of internationally recognized results in scientific research work.</p>	

<ul style="list-style-type: none"> <li>Provide a link to the list of the most significant published results of lecturers and associates in the previous 5 years.</li> </ul>	Guideline 5.1.
The list of the most significant published results is shown in chapter 5.3 of the Elaborate and in the Plan of scientific and research work. An extremely modest number of papers in journals with an impact factor (one in 2021), two papers from meetings, etc. are available.	
<ul style="list-style-type: none"> <li>Provide a link to the plan of science, research, professional, or art work.</li> </ul>	Guideline 5.2.
The Plan of scientific research work of the institution with an overview of the situation and plans and activities for the period 2022-2027 was presented.	
<ul style="list-style-type: none"> <li>Provide a link to the proposed act regulating scientific research activity, professional, or art activities.</li> </ul>	Guideline 5.3.
The linked documents are: Rulebook on the Fund for Stimulation and Promotion of Scientific Research and Artistic Work at the University of Banja Luka and the Decision on the Adoption of the Berlin Declaration on Open Access to Scientific Professions, which are acts that regulate scientific research, professional, and artistic activities.	
<b>STANDARD 5. Scientific research activity</b>	
<b>STRENGTHS:</b> There is a certain cooperation with economic organizations in the country and the surrounding area, as well as recognition of the need to improve scientific research work. It is necessary for the Institution to set aside certain funds for the improvement of scientific research work, in order for the Faculty's associates to increase their competitiveness in competitions of national and international funds.	
<b>WEAKNESSES:</b> The results of the research work are very modest and it is necessary to significantly improve them.	
<b>REQUIREMENTS FULFILLMENT LEVEL</b>	<b>III</b>

## STANDARD 6. ACADEMIC STAFF

6. Academic staff	Reference
<ul style="list-style-type: none"> <li>Provide a link to a document that provides an overview of the lecturers teaching in the study program. The document should also contain data related to: the type of contract with the higher education institution, the workload of lecturers on the new study program, the total workload of lecturers at the higher education institution, the workload of lecturers at other higher education institutions in the RS/BiH.</li> </ul>	Guideline 6.1. 6.3. 6.5. 6.8.
Documents have been submitted (Elaborate on the justification of the establishment of the study program Environmental Protection Engineering, chapter 7.2; 7.3, Teaching coverage and workload of the teaching staff for the study program Environmental Protection Engineering and The workload of teachers of the Faculty of Mining in all study programs that show a summary overview of the teachers who teach on the study program. A contract has been submitted for each teacher and a table of the workload of teachers on the study program and	

the higher education institution is attached. From the submitted documents on teaching coverage and teacher workload, it is evident that the engagement of 43 teachers and associates is planned for this study program, of which is 37 teachers and 6 associates. Out of the total number of hired teachers, 27 teachers or 75% of teachers have a full-time work contract, while 2 teachers are hired on the basis of a supplementary work contract and 9 teachers on the basis of a part-time contract. All 6 associates have full-time employment contracts. According to the documentation on the teaching coverage, the teaching coverage for teachers who have a full-time work contract (fund of full-time teacher hours in relation to the total fund of teaching hours) is 71.02; the coverage of exercises by associates with full-time work contracts is 75.84 (exercises are performed by associates and teachers) and in total, the coverage of teaching and exercises with teachers and associates is 73.06% for the entire study program.

The workload of the teachers is in accordance with guidelines 6.1, except for one teacher who, in the event that he is engaged in all proposed optional subjects in the winter semester, will have 10 hours of teaching and 4 hours of exercises. It is recommended that the teacher's workload be brought into line with the aforementioned guideline in this case as well.

- *Provide a link to the list of lecturers and associates who are hired to teach full-time with whom the higher education institution has concluded employment contracts or employment contracts with delayed effect. The list should contain the data required by the referenced guidelines.*

*Guideline 6.3. and 6.5. and 6.7.*

The list of teachers and associates on the full-time study program with whom the higher education institution has concluded employment contracts or employment contracts with delayed effect is available and contains the information required by these guidelines.

- *Provide a link to documents containing the scientific, art and professional qualifications of the teaching staff with whom the higher education institution has concluded employment contracts or employment contracts with deferred effect with evidence of fulfillment of the conditions and criteria prescribed by law and the act regulating the conditions for promotion to academic title.*

*Guideline 6.2.*

Documents containing the scientific, artistic and professional qualifications of the teaching staff with whom the higher education institution has concluded employment contracts or employment contracts with delayed effect are presented, with evidence of fulfillment of the conditions and criteria for selection into positions.

- *Provide a link to the list of part-time lecturers and associates with whom the higher education institution has concluded employment contracts or employment contracts with deferred effect with evidence of fulfillment of the conditions and criteria prescribed by law and the act that regulates the conditions for promotion to academic title.*

*Guideline 6.6.*

A list of part-time teachers and associates with whom the higher education institution has concluded employment contracts or employment contracts with deferred effect with evidence of fulfillment of the conditions and criteria for selection into positions is available.

<ul style="list-style-type: none"> <li>• <i>Provide a link to the list of lecturers and associates with whom the higher education institution has concluded a contract on supplementary work or a contract on supplementary work with delayed effect</i></li> </ul>	Guideline 6.6.
Lists of teachers and associates with whom the higher education institution has a contract on supplementary work or a contract on supplementary work with delayed effect are available.	
<ul style="list-style-type: none"> <li>• <i>Provide a link to the list of lecturers and associates from another higher education institution with whom the higher education institution has an employment contract. In addition to the names of lecturers and associates, the list should also contain data on the workload of lecturers and associates.</i></li> </ul>	Guideline 6.6.
A list of teachers and associates from other higher education institutions with whom the higher education institution has concluded an employment contract and data on the total workload of teachers and associates is available.	
<ul style="list-style-type: none"> <li>• <i>Submit in electronic form contracts with lecturers and associates who teach in the study program.</i></li> </ul>	Guideline 6.3.
Contracts with teachers and associates covering teaching in the study program are available.	
<ul style="list-style-type: none"> <li>• <i>Submit in electronic form decisions on promotion to academic titles: scientific – teaching titles, artist - teaching, teaching and associate titles.</i></li> </ul>	Guideline 6.1. and 6.2.
Decisions on the valid selection in scientific-teaching, artistic-teaching, teaching and associate professions have been submitted.	
<ul style="list-style-type: none"> <li>• <i>Submit in electronic form the decision on the responsible lecturers and associates of the university (for all university members), that is, the college.</i></li> </ul>	Guideline 6.3.
Decisions about university teachers and associates (by university members), i.e. higher schools, are visible through the proposed list of teaching coverage (Appendix 7), the structure of the curriculum and through the decisions of faculties and universities.	
<ul style="list-style-type: none"> <li>• <i>Submit a certificate from the Fund for pension and disability insurance on the registration of lecturers and associates who have an employment contract, except for contracts with delayed effect</i></li> </ul>	Guideline 6.63.
Submitted PIO Fund certificate on the application of teachers and associates.	
<ul style="list-style-type: none"> <li>• <i>Submit the consent of the higher education institution where the teacher and associate has a full-time employment contract to be able to conclude an employment contract, supplementary work contract or employment contract with the higher education institution that is the applicant for initial accreditation.</i></li> </ul>	Guideline 6.6.
The consents of the institutions where the teacher and associate have a full-time employment contract are available.	

<ul style="list-style-type: none"> <li>• <i>Submit a list of the workload of associates that should be in accordance with the requirements of the referenced guideline</i></li> </ul>	<i>Guideline 6.7.</i>
<p>Load of teaching staff (table), Teaching coverage (table) and Load of teachers on all study programs (table) are shown. The workload list of associates (teachers and assistants) is in accordance with the requirements of the referenced guideline.</p>	
<p><b>STANDARD 6. Academic staff</b></p>	
<p><b>STRENGTHS:</b> The Mining Faculty of the University of Banja Luka, on the basis of the adopted systematization of jobs, announces public tenders, in accordance with the regulations. The method of conducting the competition, the public and transparency are presented. The final selection of teaching staff is made at the University. The scientific competences and professional qualifications of the teaching staff fully correspond to their responsibilities in teaching. Through the development strategy, the Institution clearly indicates the need for scientific development and scientific activities.</p>	
<p><b>WEAKNESSES:</b> No deviations from the requirements prescribed by this standard were observed.</p>	
<p><b>REQUIREMENTS FULFILLMENT LEVEL</b></p>	<p><b>III</b></p>

## STANDARD 7. NON-ACADEMIC STAFF

7. Non-academic staff	Reference
<ul style="list-style-type: none"> <li>• <i>Provide a link to the list of administrative staff that contains information and job titles for which they have a Guideline 7.1. UP-P AVORS 03 full-time employment contract or a full-time employment contract with deferred effect</i></li> </ul>	<i>Guideline 7.1.</i>
<p>A list of administrative staff containing information and titles of positions for which they have concluded a full-time employment contract or a full-time employment contract with deferred effect is available. The Review Panel especially emphasizes the availability of mentor-advisors who are assigned from the ranks of assistants and docents, whose task is to be a kind of tutor during studies.</p>	
<ul style="list-style-type: none"> <li>• <i>Submit full-time employment contracts or deferred employment contracts for student services administrative staff</i></li> </ul>	<i>Guideline 7.2.</i>
<p>A contract was submitted for one administrative employee of the student service (student service representative), Zana Hajnesevic.</p>	
<ul style="list-style-type: none"> <li>• <i>Submit contracts for staff engaged in legal and financial affairs, librarian affairs and information system maintenance affairs.</i></li> </ul>	<i>Guideline 7.3.</i>
<p>Contracts with the faculty secretary, executors engaged in legal and financial work, librarian work and information system maintenance work were submitted.</p>	

### STANDARD 7. Non-academic staff

#### STRENGTHS:

The faculty has qualified and competent administrative and support staff, both in the student service of the faculty, as well as in administration, finance and the IT sector. The faculty has an employed IT engineer who has raised the faculty's information system to a significant IT level. This criterion is met.

#### WEAKNESSES:

No deviations from the requirements prescribed by this standard were observed.

#### REQUIREMENTS FULFILLMENT LEVEL

III

### STANDARD 8. STUDENTS

8. Students	Референца
<ul style="list-style-type: none"> <li>Provide a link to a document that contains an example of a competition for admission to studies (the number of students who enroll, requirements for enrollment, criteria for determining the order of candidates, the procedure for conducting the competition, the method and deadlines for submitting an appeal against the established order, as well as the amount of tuition they pay students whose studies are not financed from the budget).</li> </ul>	Guideline 8.1. and 8.5.
<p>The documents related to the competition for admission to studies with all required elements for 2022/23 have been presented. a year. The Decision of the University Board of Directors on the amount of tuition fees for the academic year 2022/23 was presented. A Guide for freshmen has been prepared for future students. The submitted example of a competition for admission to studies contains all the required elements - the number of students who enroll, conditions for enrollment, criteria for determining the order of candidates, the procedure for conducting the competition, the method and deadlines for submitting an appeal to the established order, as well as the amount of tuition paid by students whose studies are not financed from the budget.</p>	
<ul style="list-style-type: none"> <li>Specify the planned number of students for enrollment and evidence of compliance of the number of students with spatial and technical-technological conditions, as well as the document which outlines the teaching groups.</li> </ul>	Guideline 8.2 and 8.4.
<p>The decision on the adoption of the plan for enrolling students at the Faculty of Mining in the academic year 2022/2023 is presented. The planned number of students for enrollment are available in the submitted decision. Evidence of the compliance of the number of students with spatial and technical-technological possibilities is available in the submitted Elborat, in the part related to space and equipment.</p>	
<ul style="list-style-type: none"> <li>Provide a link to the document that determines the conditions (general and special), that is, the criteria for the classification and selection of candidates for enrollment.</li> </ul>	Guideline 8.3.
<p>The document that establishes the conditions, that is, the criteria for the classification and selection of candidates for enrollment, is presented. The conditions and criteria for enrollment are described in the Elaborate</p>	

on the justification of starting the study program of the first cycle Environmental Protection Engineering (Chapter 9.2).

#### STANDARD 8. Students

##### STRENGTHS:

Access policies, processes and enrollment criteria are implemented consistently and transparently. During enrollment, students are ranked according to success. Rankings are made and are exclusively guided by success criteria. A campaign is being implemented in schools as well, where future students are introduced to the work of the institution. Upon completion of the programme, students receive a diploma and a diploma supplement which shows the qualifications they have acquired, including the learning outcomes achieved and the context, level, content and status of the studies they have attended and successfully completed.

##### WEAKNESSES:

No deviations from the requirements prescribed by this standard were observed.

#### REQUIREMENTS FULFILLMENT LEVEL

III

### STANDARD 9. FACILITIES AND EQUIPMENT

9. Простор и опрема	Референца
<ul style="list-style-type: none"> <li>Provide a link to the proof of ownership of the business space where the higher education institution will administer studies, as well as proof that the space meets the appropriate urban, technical-technological and hygienic conditions.</li> </ul>	Guideline 9.1. and 9.4.
<p>A description of the space with the equipment is given in the study. The building of the Faculty of Mining has 1025 m<sup>2</sup>, the expected total number of students is 100, so the required space is 10.25 m<sup>2</sup>, which is more than the standard (5 m<sup>2</sup>). A description of the rooms and their characteristics and purpose are provided. Given that it is a public higher education institution, it is not necessary to provide proof of ownership. During the visit to the institution, the committee of reviewers confirmed the satisfaction of urban, technical-technological and hygienic conditions.</p>	
<ul style="list-style-type: none"> <li>Provide a link to the list of rooms with surface area in the higher education institution requesting a licence to operate, i.e. in a department outside the headquarters of the higher education institution requesting a licence to operate, including a description of the purpose of the premises and proof of fulfilment of the prerequisites for the teaching and scientific research activities.</li> </ul>	Guideline 9.2. and 9.10.
<p>The requested list, presentation and description of the space and equipment, and the characteristics and purpose of the same, were submitted. The commission stated that the space meets the criteria for maintenance and that the prerequisite for the teaching and scientific research process is fulfilled.</p>	

<ul style="list-style-type: none"> <li>• <i>Provide an evidence that business space is provided for the work and needs of the student service, secretariat and student parliament.</i></li> </ul>	<p><i>Guideline 9.3. and 9.7.</i></p>
<p>During the visit, the Review Panel visited the premises intended for the student service, the secretariat and the student parliament and found that adequate space was provided for the work and needs of the student service, the secretariat and the student parliament.</p>	
<ul style="list-style-type: none"> <li>• <i>Provide a link to the list of necessary technical equipment that is used in the teaching process, and which ensures teaching in accordance with health and safety standards.</i></li> </ul>	<p><i>Guideline 9.4. and 9.6.</i></p>
<p>The documents LIST OF EQUIPMENT and EQUIPMENT contain lists of the necessary technical equipment used in the teaching process. Teaching is planned in accordance with health and safety standards.</p>	
<ul style="list-style-type: none"> <li>• <i>Submit a certified extract from the inventory book, which, among other things, proves the possession of appropriate technical equipment as well as the required number of computers available to students.</i></li> </ul>	<p><i>Guideline 9.5 and 9.9.</i></p>
<p>Documents LIST OF INVENTORY (certified) and TECHNICAL EQUIPMENT prove the possession of appropriate technical equipment.</p>	
<ul style="list-style-type: none"> <li>• <i>Provide a link to a document that proves the coverage of all subjects with appropriate teaching aids and teaching aids for the quality of the teaching process.</i></li> </ul>	<p><i>Guideline 9.8.</i></p>
<p>Within the document ELABORAT, the coverage of the faculty with appropriate classrooms and auxiliary teaching aids for the quality of the teaching process is described. Within the LIST OF EQUIPMENT document, the coverage of individual subjects with appropriate teaching aids and teaching aids for the quality of the teaching process is visible.</p>	
<ul style="list-style-type: none"> <li>• <i>Provide a link to a document that lists the resources of the higher education institution for carrying out scientific research activities.</i></li> </ul>	<p><i>Guideline 9.11.</i></p>
<p>Within the document LIST OF EQUIPMENT, the resources of the higher education institution for carrying out scientific research work are listed. During the visit, the Review Panel visited the laboratory premises of the faculty and personally verified the fulfillment of the laboratory capacities and determined that the conditions for holding the planned classes in the laboratories were met.</p>	
<ul style="list-style-type: none"> <li>• <i>Provide links to contracts with institutions with which the higher education institution has signed contracts for conducting scientific research activity</i></li> </ul>	<p><i>Guideline 9.11.</i></p>
<p>Contracts with institutions with which the higher education institution has signed contracts for conducting scientific research work have been submitted.</p>	



<ul style="list-style-type: none"> <li>• Provide a link to a document that proves the possession of equipment for remote teaching (equipment, teaching aids, laboratories, platforms, etc.).</li> </ul>	Guideline 9.12.
<p>A document proving the possession of equipment for performing laboratory exercises has been submitted. The faculty also uses equipment from other institutions (eg the Mining Institute). The agreement with the Mining Institute from Prijedor includes the transfer of equipment.</p>	
<p><b>STANDARD 9. Facilities and equipment</b></p>	
<p><b>STRENGTHS:</b> The faculty has a solid infrastructure (auditoriums, laboratories, reading room), equipped according to standards (video projectors, computer equipment, laboratory equipment). The faculty also has modern software for monitoring classes via the Internet and a significant number of textbooks for students. The faculty has a very well developed IT structure. Depending on the needs, distance learning, e-learning is also used. In the period of the outbreak of the Covid-19 pandemic, but also before that period, the teaching staff adopted the e-learning teaching model, which proved to be a very effective and effective way of working with students. The acquisition of new software packages is planned.</p>	
<p><b>WEAKNESSES:</b> No deviations from the requirements prescribed by this standard were observed.</p>	
<p><b>REQUIREMENTS FULFILLMENT LEVEL</b></p>	<p><b>III</b></p>

## STANDARD 10. LIBRARY, TEXTBOOKS AND IT SUPPORT

10. Library, textbooks and IT support	Reference
<ul style="list-style-type: none"> <li>• Submit a link to a summary of the number of library units in the higher education institution for which a licence to work is requested (register of library materials in electronic form).</li> </ul>	Guideline 10.1.
<p>A summary overview of the number of library units was submitted.</p>	
<ul style="list-style-type: none"> <li>• Provide a link to an overview of the number and titles of textbooks by scientific field and courses (in Serbian and other languages) that are available to students, including electronic editions.</li> </ul>	Guideline 10.1.and 10.6.
<p>A summary overview of the number and titles by fields and subjects has been submitted. The mentioned literature is exclusively related to the fundamental subjects of the Faculty of Mining and Geology, in the Serbian language. Given that the study program of environmental protection engineering is interdisciplinary in nature and that a large part of the literature is already available in the Serbian language, and that modern literature for the education of experts is also available in the English language, the recommendation would be to consider the possibility of obtaining a larger number literature in the field of environmental protection engineering in accordance with the curriculum.</p>	

<ul style="list-style-type: none"> <li>• <i>Provide a link to the act on textbooks (rulebook or some other act that regulates library materials in terms of having textbooks for the needs of students)</i></li> </ul>	<p><i>Guideline 10.1. and 10.6.</i></p>
<p>Appropriate legal and official acts were submitted - Law on Higher Education of the Republic of Srpska (Article 70); Rulebook on publishing activities of the University of Banja Luka; Law on library and information activity (Sl.gl.RS no. 44/16); Rulebook on standards and norms in library and information activities (Sl.gl.RS no. 10/20).</p>	
<ul style="list-style-type: none"> <li>• <i>List subscriptions to databases of scientific journals or agreements with institutions that allow direct access to search engines of databases with scientific journals.</i></li> </ul>	<p><i>Guideline 10.4. and 10.5.</i></p>
<p>A list of journals to which the organization is subscribed as well as links to open databases have been provided. Given that the Faculty of Mining within the University of Banja Luka does not have continuous subscriptions to scientific journal databases and that access to search engines of databases with scientific journals is done individually (some professors are reviewers in scientific journals), it is recommended to subscribe to scientific journals with a special focus on high-ranking environmental engineering journals to ensure access to the latest research and trends in the field.</p>	
<ul style="list-style-type: none"> <li>• <i>Submit a statement on the possession of a reading room with appropriate equipment for monitoring library content, as well as information equipment that is necessary for the teaching process, scientific, research and art activities.</i></li> </ul>	<p><i>Guideline 10.2. and 10.7.</i></p>
<p>The required proofs of ownership of the reading room were submitted, which was confirmed during the commission's visit.</p>	
<p><b>STANDARD 10. Library, textbooks and IT support</b></p>	
<p><b>STRENGTHS:</b> The subjects are partially covered by appropriate library material, and the use of international magazines and other literature is also foreseen. There is a small reading area. Digitization of textbooks is underway and subscriptions to magazines in the field of environmental protection engineering are planned.</p>	
<p><b>WEAKNESSES:</b> The subjects are partially covered by the appropriate library material, but procurement plans for textbooks in the field of environmental protection engineering are limited.</p>	
<p><b>REQUIREMENTS FULFILLMENT LEVEL</b></p>	<p><b>III</b></p>

## STANDARD 11. FUNDS

11. Funds	Reference
<ul style="list-style-type: none"> <li>• <i>Provide a link to the financial plan for the current year and the decision of the temporary management body on the adoption of the financial plan.</i></li> </ul>	<p><i>Guideline 11.1. and 11.2.</i></p>
<p>The financial plan for the current year is available in the Elaborate adopted by the Senate on May 26, 2022.</p>	

<ul style="list-style-type: none"> <li>• Provide a link to a bank guarantee in the amount of 50% of the tuition fee for each student, for the continuation and completion of studies in the event of the closure of the institution for which a licence to work is requested or the termination of a specific study program.</li> </ul>	Guideline 11.2.
The standards guideline applies to private higher education institutions.	
<ul style="list-style-type: none"> <li>• Provide a link to an agreement with another accredited higher education institution from Republika Srpska on ensuring the completion of studies for students in the event of closure of institution or termination of a specific study program.</li> </ul>	Guideline 11.3.
The standards guideline applies to private higher education institutions. The Faculty of Mining submitted the agreement concluded with the Faculty of Mining and Geology of the University of Belgrade.	
<b>STANDARD 11. Funds</b>	
<b>STRENGTHS:</b> The requested documents have been submitted.	
<b>WEAKNESSES:</b> No deviations from the requirements prescribed by this standard were observed.	
<b>REQUIREMENTS FULFILLMENT LEVEL</b>	<b>III</b>

### 3. Final opinion of the Review Panel

After inspecting the complete submitted documentation, visiting the higher education institution and analyzing all the documents, procedures and ways of functioning of the higher education institution in terms of the operation of the study program, and after completing the assessment process, the following level of fulfilment of requirements of the standards and criteria of the study program was set:

STANDARDS	REQUIREMENTS FULFILLMENT LEVEL
1. Goals and core tasks of the higher education institution	III
2. The internal quality assurance mechanism	III
3. The organisation of higher education institution	III
4. Studies	III
5. Scientific and research activity	III
6. Academic staff	III
7. Non-academic staff	III
8. Students	III
9. Facilities and equipment	III
10. Library, textbooks and IT support	III
11. Funds	III

Based on the overall assessment of the quality of the first-cycle Environmental protection engineering study program, the Review Panel's final opinion is that the Faculty of Mining meets the prescribed requirements of the Standard for Initial Accreditation. The opinion of the Review Panel is also the basis for the Agency to make a recommendation for initial accreditation with the purpose of issuing a licence to operate.

#### Members of the Review Panel:

**Asst. Prof. Maja Petrovic, PhD,**  
representative of the academic community,  
chairman

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**Prof. Aleksandar Jovovic, PhD,**  
representative of the academic community,  
member

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**Marinko Bogojevic,** representative of  
business and practice, member

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**Andrej Zuza,** student representative,  
member.

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