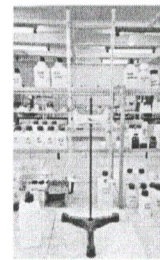
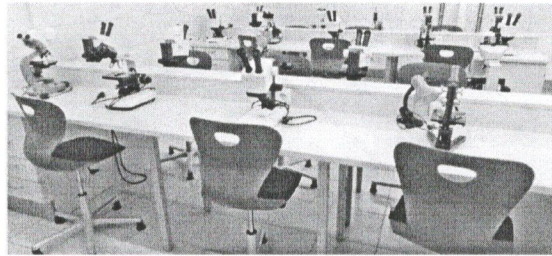


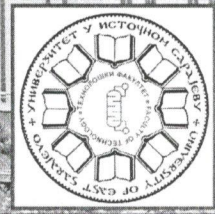
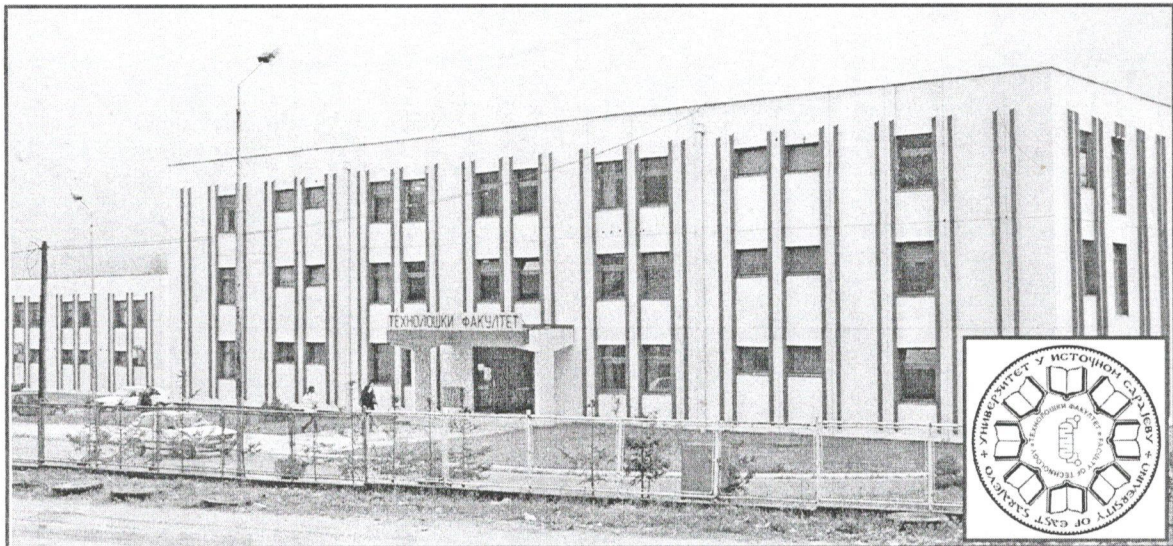


University of East Sarajevo  
Faculty of Technology



## ELABORATE

ON JUSTIFICATION OF IMPLEMENTATION  
OF THE STUDY PROGRAM "ENVIRONMENTAL FRESHWATER MONITORING"  
ON THE II CYCLE OF STUDIES



Zvornik, December 2020.



University of East Sarajevo  
Faculty of Technology

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Seal

DEAN

Prof. dr Dragan Vujadinović

Zvornik, December 2020.



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BASIC INFORMATION ABOUT THE ORGANIZATIONAL UNIT

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Web address of the organizational unit	www.tfzv.ues.rs.ba
Date of the first entry in the court register	02.03.1994., Basic Court in Bijeljina
Number of the first entry in the court register	Fi.137/94
Date of the last entry in the court register	14.09.2007., Basic Court in Sokolac
Number of the last entry in the court register	089-0-REG-07-000 329
The organizational code of the organization unit in the RS Treasury	0831019
UIN of the organizational units	4400592530000
VAT number of the organizational unit	400592530018
Identification number assigned by	01029606
Dean of the organizational unit	prof. Dr. Dragan Vujadinović





## INTRODUCTION

In the eastern part of Republic Srpska, the Faculty of Technology in Zvornik was established in 1993 within the University of East Sarajevo. At that time, the Curriculum for the Chemical Engineering and Technology study program included basic studies lasting five years, where there was only one - *general department*, without profiling within the corresponding narrower educational fields.

From the academic 2004/2005 year, the teaching activity at the Faculty takes place according to the new Curriculum and Program, which is adapted to the European Educational Area, and which is in accordance with the concept of the Bologna Declaration.

During the 20 years of the Faculty's existence, the Curriculum and Program in the field of Technology is permanently expanded and improved in order to increase the efficiency of studying and the adoption of the latest scientific knowledge, following the needs of the economy and harmonizing with similar study programs. We are witnessing the fact that since the last decade of the twentieth century interest in fundamental sciences has been growing again. The group of sciences, defined in the Western world as "Life Sciences", has become the main budget item in all funds for scientific and technological development. Development in the field of biomedicine, food and material technology, environmental control and all other major issues of today's civilization is conditioned by progress in the field of "Life Sciences". Since biology is the core of the group of sciences defined in this way, in July 2013, the University of East Sarajevo received permission from the Ministry of Education and Culture in Republic of Srpska to conduct the "Biology" study program at the Faculty of Technology in Zvornik. From the academic 2013/2014 year Biology studies are organized in the first cycle of studies lasting 4 years (240 ECTS points) with the exit module - graduate professor of biology.

In addition to the general goals of the academic study of the first cycle, which relate to the acquisition of multidisciplinary knowledge in the field of biology, special goals are also added, such as efficient and rational higher education of professional-scientific personnel through a curriculum with a large number of subjects whose contents are mainly related to the latest achievements in the field of environmental monitoring. With this study system, students will be able to acquire general knowledge in biological sciences, but at the same time, they will be directed towards specific scientific areas of interest. The planned goals will be achieved by engaging teaching staff with recognized scientific results who are able to introduce students to the methodology of research and scientific work, both from the theoretical aspect and from the aspect of further practical application. Furthermore, one of the important goals of the second cycle of studies is the professional-scientific qualification of the candidate for continuing education, that is, the third cycle of studies (doctoral studies

Successful completion of the study program of the second cycle would enable the student to acquire the academic title of *Master of Ecology (MSc in Ecology)*.

The Faculty conducts a constant review of the educational process, in order to ensure that all its elements are in accordance with the latest trends and coordinated in an appropriate manner, and that each element contributes to the goals of the studies, thereby improving educational outcomes in general.

Areas of work and employment of such educated experts are: scientific institutes, technological institutes, institutes for public health and the environment, inspection services, primary and secondary schools, laboratories for water quality control, national parks, fishing farms, etc.



**1. STANDARD QUALIFICATIONS FOR THE STUDY PROGRAM  
"ENVIRONMENTAL FRESHWATER MONITORING"**

**1.1. BASIC CHARACTERISTICS**

- a) **Study cycle:** Second
- b) **Degree:** Academic
- c) **Name of the qualification**  
Master of Science in Ecology – 300 ECTS
- d) **Scientific field:** natural sciences; **Scientific field:** biological sciences
- e) **Scientific field:** engineering and technology; **Scientific field:** other engineering and technologies
- f) **Language of study:** Serbian
- g) **Duration of studies:** 1 year (2 semesters)
- h) **Minimum volume:** 60 ECTS
- i) **Level:** 7
- j) **Conditions/methods of admission:** Completed academic studies of the first cycle of studies with 240 ECTS credits obtained from the study programs: Biology, Chemistry, Technology, Ecology and Environmental Protection as well as other related fields in compliance with the provisions of the Regulations on studying in the second cycle of studies.





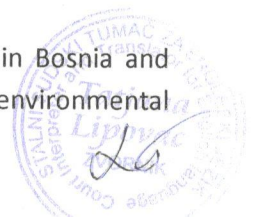
### 1.1.1. Introduction to qualification

Water resources that mean life on Earth and biological diversity, as it is made available to us, oblige us to act rationally. During its development, man paid little attention to the rational use of water resources and their preservation. One of the reasons for this behavior of people is ignorance of this resource and its peculiarities that make it important for sustaining life on Earth, but also sensitive to various human influences. Many human activities, from water supply to transport, mining, agriculture, animal husbandry and chemical industry, have the potential to pollute water. Spent water, depending on the way it is used, is polluted with harmful substances, so, despite all the available purification technologies, supplies of clean water are decreasing. At the beginning of the 21st century, the world is facing a crisis of lack of quality drinking water. It has been proven that the deterioration of the state of freshwater ecosystems occurs much faster and has a larger scale than in the case of marine or terrestrial ecosystems, and that the status of freshwater plant and animal species is more endangered than species that inhabit other ecosystems. Monitoring and control of chemical and biological pollution is of key importance for the preservation of these aquatic ecosystems. According to the Framework Directive of the European Union on waters, the assessment of the ecological state of rivers and lakes should be based mainly on biological elements such as: aquatic macrophytes, phytobenthos, benthic macroinvertebrates, phytoplankton and fish, supported by hydromorphological characteristics and physical and chemical parameters of water quality.

This study program for the master's degree in ecology - 300 ECTS, is adapted to the European Educational Area in accordance with the concept of the Bologna Declaration and the recommendations of EMAB (Ecological Monitoring and Aquatic Bioassessment), as well as national accreditation standards. Its main goal is capacity building in higher education as a necessary step towards the European Union's policy on the integration of environmental protection in the region. Achieving these goals implies the application of the latest methods and techniques required for educational and scientific-research work in the mentioned areas, which will enable the upgrading and expansion of acquired knowledge and skills after basic academic studies, and thus a higher level of competence. The Master study program *Environmental freshwater monitoring* is based on a multidisciplinary approach because it includes groups of subjects from biology and ecology related to the assessment of the ecological state and biodiversity of fresh waters, as well as groups of subjects from engineering and technology related to environmental and water protection. As the proposed master study program is based on the selection of teaching content from the fields of natural sciences and engineering and technology, it is in accordance with the modern concept of interdisciplinary studies, and in addition to the scientific field: natural science and the scientific field: biological science, it also belongs to the scientific field: engineering and technologies and the scientific field: other engineering and technologies.

### 1.1.2. Reasons for having the qualification – the justification of carrying out the study program

Current education on biological assessment of the environment and water in Bosnia and Herzegovina does not meet the requirements of European legislation and policy on environmental





protection. According to the Ministry of Agriculture, Forestry and Water Management and the Strategy for Integral Water Management in Republic Srpska until 2024, the development of standardized methods for assessing the ecological state of lakes and rivers in accordance with the EU Water Framework Directive was selected as a priority. In order to achieve this, experts who will work in the control and protection of the environment and the preservation of natural resources are needed.

Within the framework of the international ECOBIAS project, the Faculty of Technology of the University of East Sarajevo was recognized as one of the suitable faculties for the development of the program of the second cycle of academic studies entitled *Environmental Freshwater Monitoring*. Several criteria were taken into account:

- willingness of the teaching staff to cooperate,
- a sufficient number of teaching staff for the implementation of Curricula and programs, as well as
- readiness to implement and perform Curricula and programs.

The second cycle of studies - the master's study is a natural continuation of the first cycle of studies, in accordance with the Bologna Declaration.

The second cycle of studies - the master's study is carried out by teachers and associates of the Faculty, who in this way supplement the norm from the first cycle of studies. The majority of teachers are provided, who are in permanent employment and have the competence to teach in the 2nd cycle of studies from the group of professional subjects. The rest of the teachers will be recruited from other faculties of the University of East Sarajevo (Faculty of Medicine, Faculty of Agriculture).

The justification for the realization of the study program of the second cycle is reflected in the following reasons:

- ✓ rational use of water resources,
- ✓ planning and management of water resources on a scientific and professional basis,
- ✓ application of the best available techniques and new scientific knowledge in the field of ecology,
- ✓ students are allowed regular education at faculties from the main study program of the first cycle in accordance with the Bologna Declaration,
- ✓ students will obtain a master's degree and thereby increase their chances of employment,
- ✓ the development of scientific and research work at the faculty is promoted, which includes the engagement of students attending the second cycle of studies, as well as an increase in the number of papers of international importance,
- ✓ qualified scientific and professional personnel with well-founded abilities for independent or team scientific-research work, who understand and easily engage in modern scientific and professional achievements, are provided,
- ✓ the formation of experts who will possess the necessary knowledge from basic scientific disciplines in order to create a clear picture of the processes taking place in industrial systems and the environment,
- ✓ the percentage of residents with a higher academic degree in Republic of Srpska is increasing, which, according to the estimation of the Republic Institute of Statistics, is now very low.

Upon completion of the Master's academic studies in *Environmental Freshwater Monitoring*, experts capable of working in following areas are formed:



- development laboratories and research centers engaged in research in the field of Ecology and Environmental Protection,
- work in institutions whose primary task is nature protection and biodiversity preservation (nature protection institutes, protected natural resources, national parks),
- work in state administration bodies, inspection services and research centers of various state, private and public companies, fishing farms.

The establishment and continuous use of the system of biological monitoring of surface waters in the future is recognized as a priority area in B&H.

Below are some of the factories and institutions where students will be able to work after completing the second study cycle:

- ✓ *Production and processing of water:* Factories for the preparation of drinking water - city water supply systems (AD "Vodovod i Komunalije" Zvornik, Vodovod AD Banja Luka)
- ✓ *National parks:* Drina Srebrenica National Park, Kozara National Park, Sutjeska National Park, etc...
- ✓ *Education and scientific work:* Faculties and secondary schools, Development centers, Scientific research institutions, etc...
- ✓ *Official (state) controls:* Sanitary inspection, Ecological inspection, etc...
- ✓ *Control laboratories:* Institute for water JSC Bijeljina, Agricultural Institute SC Bijeljina, Institute of Health of Republic Srpska with regional units, etc...

### 1.1.3. Financial justification

Within the framework of the international ECOBIAS project, the Faculty of Technology of the University of East Sarajevo was recognized as one of the suitable faculties for the development of the program of the second cycle of academic studies entitled *Environmental Freshwater Monitoring*. In addition to the existing equipment at the Faculty, through the activities of this project, additional equipment necessary for conducting practical classes in the second cycle of studies will be acquired. The teaching staff of the Faculty of Technology in Zvornik, as a partner member of this project, is trained to teach in this study program through listening to appropriate courses.

Through the ECOBIAS project, it is planned that the mentioned study program in the academic 2021/2022 year enrolls at least 5 students per year.

The justification for introducing this study program is reflected in the lack of comprehensive and methodologically consistent monitoring of biological elements of quality in aquatic ecosystems of the entire B&H.

Given the fact that the University of East Sarajevo and the Faculty of Technology have a sufficient number of teachers and associates who can participate in teaching the proposed study program, *there is no need to provide additional financial resources*.

The following would be engaged in teaching within this study program: 7 teachers and 7 associates in a permanent employment relationship (2 teachers and 1 associate would be engaged from other faculties of the University of East Sarajevo) and 1 teacher in a part-time employment relationship.





The education of a certain number of permanently employed associates is in progress, some of whom should acquire the title of teacher within a period of 3 years. This would also mean an additional reduction in the need to hire teachers from other faculties of the University of East Sarajevo and part-time teachers.

In part 3 of the Elaborate is given a list of teachers and associates (as well as their labour-legal status) who would teach on the study program *Environmental Freshwater Monitoring*.

## **1.2. COMPETENCES / LEARNING OUTCOMES**

### **1.2.1. List of competencies at the qualification level**

#### KNOWLEDGE

- ✓ demonstrate broader knowledge in biology, chemistry, biochemistry, ecology, ecotoxicology, microbiology and other sciences that enables professional and scientific work and responsible action in their field;
- ✓ connect the elements of physical, chemical and biological mechanisms essential for the quality and sustainability of ecosystems with professional and scientific knowledge in the field of ecology and environmental protection;
- ✓ demonstrate broader knowledge in the fields of biology and ecology and connect them with knowledge in the corresponding fields of chemistry, physics, mathematics and technology in order to perform professional and scientific work and responsible action in their field;
- ✓ classify knowledge from different fields in a thoughtful way, draw systematic conclusions from them, and solve complex problems.

#### SKILLS

- ✓ get to know new tasks in a systematic and fast way;
- ✓ analyze and solve problems from a scientific aspect, even if they are incompletely formulated or formulated in an unusual way, providing a spectrum of possible solutions;
- ✓ apply a scientific approach in real environmental problems;
- ✓ apply various statistical, analytical and numerical methods and software tools in solving environmental problems;
- ✓ recognize the need for finding, obtaining and distributing scientific information;
- ✓ develop project solutions in the field of ecology, including problems in the field of environmental protection;
- ✓ apply various techniques and technologies from the field of ecology necessary for planning, leading and managing existing and new techniques;
- ✓ know and apply the principles and methods of hazard/risk assessment, as well as knowledge of the hazard/risk assessment procedure, assess risk and develop a plan of measures;
- ✓ know and apply the principles and techniques of measuring physical and chemical parameters of the environment, interpreting the results and proposing risk reduction measures and protective measures;
- ✓ plan and perform independent theoretical and experimental research;
- ✓ interpret the advantages and disadvantages of the latest achievements in the field of research;
- ✓ examine and evaluate the application of new technologies.

#### COMPETENCES

- ✓ demonstrate the ability to actively cooperate in teams made up of experts of different profiles and levels of competence;
- ✓ demonstrate the ability to work effectively and communicate in a national and international environment;
- ✓ understand professional and ethical responsibility;
- ✓ learn independently, and recognize the need for lifelong learning.





### 1.2.2. Qualification structure and subjects

Distribution of ECTS credits by subjects:

Subjects	ECTS (min.)
<p><b>Environmental freshwater monitoring:</b></p> <ol style="list-style-type: none"> <li>1. Aquatic ecotoxicology</li> <li>2. Conservation of biodiversity</li> <li>3. Environmental protection engineering</li> <li>4. Water protection technologies</li> <li>5. Field practice in water monitoring</li> <li>6. Microbiology of surface waters</li> <li>7. Ecological projects</li> <li>8. Methodology of scientific - research work in ecology</li> <li>9. EU and regional legislation in freshwater monitoring</li> </ol>	42
<p>Description of outcomes and competencies:</p> <ul style="list-style-type: none"> <li>✓ apply the concept of the most important methods used in studies and research of certain toxic substances as environmental pollutants;</li> <li>✓ identify certain toxic substances and prevent their negative impact at the molecular, biochemical, cellular, physiological level, as well as at the level of the organism and the community;</li> <li>✓ analyze and critically judge professional and research work in the wider field of biology and ecology, evaluating different methodological approaches while forming critical opinions and proposals for alternative solutions;</li> <li>✓ collect and manipulate basic ecological data in order to solve ecological problems;</li> <li>✓ apply different steps in the protection of priority areas and propose reliable, profitable and successful environmental projects for the purpose of conservation;</li> <li>✓ apply theoretical and practical knowledge in the development of current environmental problems;</li> <li>✓ evaluate the application of new technologies and their combinations for the purpose of water protection;</li> <li>✓ propose applicable solutions when assessing the degree of deterioration of the quality of freshwater ecosystems, recommend conclusions on which the solutions are based using understandable language for expert and non-expert audiences.</li> </ul>	
<b>Final (master) thesis (FT)</b>	18 ECTS
<p>Description of outcomes and competencies:</p> <ul style="list-style-type: none"> <li>✓ independently solve (design, implement, document and present) a more complex problem in the field of ecology/ecological monitoring, by synthesizing acquired knowledge, skills and competences, with the use of adequate professional and scientific literature;</li> <li>✓ using a written report and oral presentation to demonstrate the connection between individual sets of learning outcomes with competencies at the qualification level.</li> </ul>	



### 1.2.3. Curriculum and program of the study program

The Curriculum of the study program is given in Appendix 1.

The teaching programs (syllabi) are given in Appendix 2.

### 1.2.4. Structure of the study program

1 year -

Environmental Freshwater Monitoring

## 1.3. RELEVANCE

The web addresses of some of the higher education institutions where similar studies in the field of Biology/Ecological Monitoring are carried out are given below.

University of Novi Sad, Faculty of Science and Mathematics, Novi Sad - Master Ecologist  
([www.dbe.uns.ac.rs](http://www.dbe.uns.ac.rs))

University of Belgrade, Faculty of Biology, Belgrade - Master of Academic Studies, study program Ecology ([www.bio.bg.ac.rs](http://www.bio.bg.ac.rs))

University of Niš, Faculty of Science and Mathematics, Niš - Ecology and Nature Protection  
([www.pmf.ni.ac.rs](http://www.pmf.ni.ac.rs))

University of Kragujevac, Faculty of Science and Mathematics, Kragujevac - Master of Academic Studies in Ecology ([www.pmf.kg.ac.rs](http://www.pmf.kg.ac.rs))

University of Tuzla, Faculty of Science and Mathematics, Tuzla - study program Applied Biology, Major Ecology and Nature Protection ([www.pmf.untz.ba](http://www.pmf.untz.ba))

University "St. Kiril and Metodij", Faculty of Science and Mathematics, Skopje - Specialist Studies, Monitoring of Aquatic Ecosystems ([www.ib.pmf.ukim.edu.mk](http://www.ib.pmf.ukim.edu.mk))

### 1.3.1. Labour market

- ✓ Jobs in water quality testing laboratories as well as other systems where there is a need for students with completed II cycle of studies;
- ✓ Jobs of designers, managers of maintenance services, water quality control, etc.;
- ✓ Jobs in business entities and public institutions in positions in the field of biology, ecology and environmental protection;
- ✓ Jobs in research and scientific institutions: institutions, institutes, faculties, schools, etc.;
- ✓ Jobs in the field of official (state) control: sanitary, environmental inspection, water inspection, etc.;
- ✓ Jobs in the field of legal regulations and standards for water quality safety: environmental protection agencies, standardization institutes, etc.

### 1.3.2. Continuing education / passability

Continuation of education in the III cycle of studies in related study programs in the field of natural and technical sciences.





#### 1.4. REGULATIONS OF THE UNIVERSITY

<https://www.ues.rs.ba/wp-content/uploads/2020/11/%D0%97%D0%B0%D0%BA%D0%BE%D0%BD-%D0%BE-%D0%B2%D0%B8%D1%81%D0%BE%D0%BA%D0%BE%D0%BC-%D0%BE%D0%B1%D1%80%D0%B0%D0%B7%D0%BE%D0%B2%D0%B0%D1%9A%D1%83-67-20.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/uis-statut-univerziteta.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/uis-izmjene-i-dopune-statuta-univerziteta-u-istocnom-sarajevu.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/uis-izmjene-i-dopune-statuta-od-27-06-2012.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/uis-izmjene-i-dopune-statuta-uis-od-27-02-2013.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/uis-izmjene-i-dopune-statuta-uis-od-01-07-2013.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/uis-izmjena.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/uis-izmjena-univerziteta-od-novembra-2014.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/uis-izmjene-i-dopune-statuta-uis-02-12-2016.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/UIS-Izmjene-Statuta.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/UIS-Izmjene-i-dopune-Statuta-Univerziteta-21-07-2017.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/uis-pravilnik-o-organizaciji-i-radukatedri.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/uis-pravilnik-o-izmjenama-i-dopunama-pravilnika-o-organizaciji-i-radukatedri-na-univerzitetu-u-istocnom-sarajevu-11-09-2015-godine.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/uis-pravilnik-o-izmjenama-i-dopunama-pravilnika-o-organizaciji-i-radukatedri-na-univerzitetu-u-istocnom-sarajevu-od-23-02-2016-godine.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/10/UIS-Pravilnik-o-izmjenama-i-dopunama-Pravilnika-o-organizaciji-i-radukatedri.pdf>

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<https://www.ues.rs.ba/wp-content/uploads/2018/07/Pravilnik-o-studiranju-na-drugom-ciklusu-studija.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2019/05/uis-Pravilnik-17.05.2019.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2017/12/Strategija-razvoja-2015-2020.pdf>

<https://www.ues.rs.ba/wp-content/uploads/2019/08/Troskovnik-2019-UES.pdf>





## 1.5. SPECIFIC REGULATIONS FOR QUALIFICATION

The right to enroll in the second cycle of *Environmental Freshwater Monitoring* studies is granted to candidates who have completed the academic studies of the first cycle of studies with 240 ECTS credits from the study programs: Biology, Chemistry, Technology, Ecology and Environmental Protection, as well as other related fields, in compliance with the provisions of the Rulebook on studying in the second cycle of studies.

Students immediately opt for the *Environmental Freshwater Monitoring* module (see the structure of the study program in section 1.2.4) in which they want to specialize. All the elective courses are defined within this study program and the student chooses them from the list of offered elective courses.

Transferring to a study program from other related study programs can be done by transferring ECTS credits. The criteria and conditions for transferring ECTS are prescribed by the statute of the University of East Sarajevo and the Rulebook on studying in the second cycle of studies.

Other details related to qualification and study rules are prescribed by the Statute of the Faculty of Technology (<https://www.tfzv.ues.rs.ba/wp-content/uploads/2020/12/Statut-Tehnoloskog-fakulteta.pdf>).



## 1.6. LEARNING METHODS

Learning methods are designed to encourage students to work independently and as part of a team. Also, they were designed to convey knowledge about the importance of lifelong learning to students. These methods are:

- ✓ lectures,
- ✓ auditory and laboratory exercises,
- ✓ seminar papers,
- ✓ presentations of student works,
- ✓ case studies,
- ✓ projects,
- ✓ workshops,
- ✓ teamwork...

Lectures, exercises, seminar papers and presentations will be used in all courses, while in some courses emphasis will be placed on workshops, teamwork, case studies and projects.

## 1.7. KNOWLEDGE CHECK METHODS

The knowledge check methods are designed to correspond to the expected learning outcomes. Various knowledge testing techniques will be used, such as:

- ✓ colloquia,
- ✓ final exams,
- ✓ tests,
- ✓ oral presentations,
- ✓ exercises aimed at solving problems,
- ✓ case studies,
- ✓ work in the laboratory,
- ✓ work on the project.

Students' knowledge will be assessed based on their ability to research information, analyze issues and competing ideas, and present arguments in a coherent manner. Knowledge testing during the course is based on the topics covered in lectures, exercises, seminars, workshops, etc., and requires the demonstration of a range of general and subject-specific skills.

## 1.8. KNOWLEDGE CHECK CRITERIA

For all activities, the student receives points that are an integral part of the final exam grade. During the pre-examination requirements for one subject, a student can score a maximum of 70 points, out of a total of 100 points. The final part of the exam is evaluated with 30 points in the point structure.

A student's success is expressed in grades, namely:

- ✓ grade 10 (outstanding) for achieved 91-100 points, (A),
- ✓ grade 9 (excellent) for achieved 81-90 points, (B),
- ✓ grade 8 (very good) for achieved 71-80 points, (C),
- ✓ grade 7 (good) for achieved 61-70 points, (D),
- ✓ grade 6 (satisfactory) for achieved 51-60 points, (E),
- ✓ grade 5 (unsatisfactory) for 50 points or less (F)



### 1.9. LEARNING RESOURCES

Adequate classroom space is available for students to carry out the teaching process, learning and research, namely six classrooms with a total capacity of 280 seats, three computer classrooms with Internet access with a capacity of 35 seats, well-equipped laboratories, a library and a reading room.

A detailed overview and specification of laboratory equipment and library material is given in appendices 5.2 and 5.3 of the Elaborate.

### 1.10. EMPLOYMENT OPPORTUNITIES AND TRANSFERABLE SKILLS

There are exceptional opportunities for employment of a Master of Ecology in the field of legislation and standards for water quality safety, in the field of state control, as well as in business entities and public institutions in positions in the field of environmental protection, research institutes, institutes, faculties, schools, etc.

The Environmental Freshwater Monitoring program is designed to provide second-cycle students with a number of important transferable skills such as:

- ✓ problem solving,
- ✓ organization,
- ✓ successful communication,
- ✓ work according to set deadlines,
- ✓ management and leadership,
- ✓ decision making,
- ✓ research skills.

### 1.11. STUDENT SUPPORT

At the Faculty, there is a Student Service that resolves student requests, performs activities related to enrollment, application for exams, issuance of appropriate certificates, etc.

The Faculty also offers students the opportunity to participate in decision-making through their representatives in the Scientific and Teaching Council of the Faculty.

Since 1998, the Faculty has established the Student Union, a student organization of a general type, which represents all the students of the Faculty and fights for the realization of the rights and interests of all students. The basic program goals and tasks of the Faculty of Technology Student Union are:

- ✓ improvement of the quality of studies and the position of students in society,
- ✓ fight for student rights and student standards,
- ✓ cooperation with student organizations in the country and abroad,
- ✓ organizing and participating in the development and implementation of the project,
- ✓ organizing student trips,
- ✓ improvement of faculty and inter-faculty cooperation,
- ✓ organizing technology events, student excursions and similar events and
- ✓ representing the interests and rights of alliance members and any other form of assistance to alliance members.





## 1.12. QUALITY ASSURANCE

At the University of East Sarajevo, a regular annual evaluation of the teaching process of the first cycle studies is carried out through student surveys. Among other things, that evaluation contains many indicators of the quality of the study program itself. In addition, pass and success analyzes are performed and students' progress during their studies is monitored. The development of a quality strategy is in progress, which will develop other types of evaluation as well as procedures for eliminating omissions and raising the quality of the study program.

### 1.12.1. Responsible people for implementing the quality curriculum

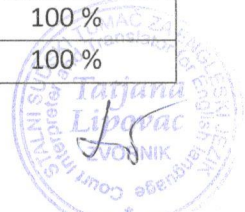
Prof. Dr. Dragan Vujadinović, dean;  
Prof. dr Slavko Smiljanić, vice dean for teaching  
Prof. Dr. Svetlana Pelemiš, vice dean for S&D (NIR)



## 2. LIST OF PERMANENT EMPLOYEES

### 2.1. LIST OF PERMANENT TEACHERS AND ASSOCIATES

No.	Teacher/Associate	Employment contract number	Number of the decision on the appointment to the position	Percentage of employment
1	2	3	4	5
<b>Full teachers</b>				
1.	Dr. Miladin Gligorić	3203-40/18	01-C-15-XL/11	100 %
2.	Dr. Miomir Pavlović	4406-1/20	126-II/06	60%
3.	Dr. Dragan Tosković	3203-38/18	125-II/06	100 %
4.	Dr. Dragica Lazić	3168-310/18	01-C-115-XIX/09	100 %
5.	Dr. Branko Pejović	3168-314/18	01-C-494-II/15	50 %
6.	Dr. Mitar Perušić	3203-42/18	01-C-390-I/15	100 %
7.	Dr. Milorad Tomić	3203-43/18	01-C-38-XLIII/18	100 %
8.	Dr. Goran Tadić	3203-39/18	01-C-37- XLIII/18	100 %
9.	Dr. Vladan Micić	4749-2/19	01-C-383-III/19	100 %
10.	Dr. Ljubica Vasiljević	4417-1/20	01-C-281-XII/20	100 %
<b>Adjunct teachers</b>				
11.	Dr. Svetlana Pelemiš	3204-198/18	01-C-104-IX/16	100 %
12.	Dr. Slavko Smiljanić	3204-299/18	01-C-197-XLVIII/18	100 %
13.	Dr. Dragan Vujadinović	3665-2/20	01-C-223-IV/20	100 %
14.	Dr. Milenko Smiljanić	3665-3/20	01-C-224-IV/20	100 %
15.	Dr. Zoran Petrović	3204-231/18	01-C-170-XLVII/18	100 %
<b>Docents</b>				
16.	Dr. Dragana Kešelj	3204-111/18	01-C-269-XIV/16	100 %
<b>Foreign language teacher</b>				
17.	Ma Vesna Cvijetinović	1593-3/20	01-C-64-X/20	100 %
<b>Senior Assistants</b>				
18.	Ma Milan Vukić	1136-7/20	01-C-28-IX/20	100 %
19.	Ma Vesna Gojković	3204-55/18	01-C-70-IX/16	100 %
20.	Ma Jelena Vulinović	3204-53/18	01-C-69-IX/16	100 %
21.	Ma Mirjana Beribaka	3204-15/18	01-C-159-XXVIII/17	100 %
22.	Ma Marija Riđošić	3204-191/18	01-C-160-XXVIII/17	100 %
23.	Ma Danijela Rajić	3204-189/18	01-C-158-XXVIII/17	100 %
24.	Ma Maja Palangetic	3444-2/18	01-C-224-XLIX/18	100 %
25.	Ma Srđan Vuković	2906-2/20	01-C-157-I/20	100 %
<b>Assistants</b>				
26.	Dario Balaban	144-1/20	01-C-510-VI/19	100 %
27.	Dusko Kostić	144/20	01-C-509-VI/19	100 %
28.	Milomirka Škrba	4198/19	01-C-205-LXV/19	100 %
29.	Jelena Vuković	4558-3/20	01-C-242-IV/20	100 %





## 2.2. LIST OF ADMINISTRATIVE WORKERS IN PERMANENT EMPLOYMENT

P.6p.	Teacher/Associate	Position according to systematization	Employment contract number
1	2	3	4
1.	Biljana Stevanović	Faculty secretary	4306-1/20
2.	Snezana Obrenović	Librarian	3186-141/18
3.	Snezana Ristić	Senior professional associate for financial accounting	3186-138/18
4.	Mirko Radić	Professional associate in teaching	3186-144/18
5.	Svetlana Mitrović	Librarian	3186-142/18
6.	Nada Pejić	Professional associate for student affairs	3186-133/18
7.	Zorica Mrkajić	Technical Secretary	3186-145/18
8.	Slavisa Memedovic	Handyman - guard - stoker	3186-156/18
9.	Mirce Dragic	Handyman - guard - stoker	3186-146/18
10.	Jovanka Pejić	Housekeeper	3186-132/18
11.	Željka Pajić	Housekeeper	3186-139/18
12.	Boro Cvjetković	Guard	3186-130/18
13.	Milan Riđošić	Guard	3186-152/18
14.	Miodrag Popović	Driver - courier	3186-151/18
15.	Božana Radovanović	Laboratory technician	3186-149/18
16.	Zorica Stevanović	Accounting clerk	3186-137/18
17.	Snezana Grujić	Computer operator	3186-150/18
18.	Goran Mrkajić	Guard	3186-131/18
19.	Marko Ivanovic	System engineer in a semi-industrial laboratory	3186-143/18
20.	Tanja Acimović	Laboratory technician	3186-140/18
21.	Slavica Djokic	Housekeeper	3186-200/18





3. CURRICULUM OF SP "ENVIRONMENTAL FRESHWATER MONITORING" WITH LIST OF RESPONSIBLE TEACHERS AND ASSOCIATES AND WORK STATUS

Study program: Environmental Freshwater Monitoring						
The full name of the subject	L	P	ECTS	Title, name and surname of the responsible teacher or associate	Work status	
1. Aquatic ecotoxicology	3	2	6	Dr. Milan Kulić, full prof./Dr. Ljubica Vasiljević, full prof. Maja Palangetić, senior assistant	permanent	
2. Water protection technologies	3	2	6	Dr. Slavko Smiljanić, assoc. prof./Dr. Goran Tadić, full prof. Danijela Rajić, senior assistant/Jelena Vuković, assistant	permanent	
3. Conservation of biodiversity	3	2	6	Dr. Slađana Petronić, full prof./Dr. Aleksandra Novaković, docent Mirjana Beribaka, senior assistant	permanent / part-time permanent	
4. Environmental protection engineering	3	2	6	Dr. Goran Tadić, full prof./Dr. Slavko Smiljanić, Assoc. professor Dario Balaban, assistant/Jelena Vuković, assistant	permanent	
5. Elective subject 1	3	2	6			
<b>Total</b>	<b>15</b>	<b>10</b>	<b>30</b>			
<b>Weekly/semester total</b>	<b>25</b>					
<b>I SEMESTER</b>						



Study program: Environmental Freshwater Monitoring

The full name of the subject	L	P	ECTS	Title, name and surname of the responsible teacher and associate	Work status
1. Ecological projects	3	2	6	Dr. Ljubica Vasiljević, full prof./Dr. Svetlana Pelemiš, assoc. prof. Maja Palangetić, senior assistant	permanent
2. Elective subject 2	3	2	6		
3. Master thesis	0	15	18		
<b>Total</b>	<b>6</b>	<b>19</b>	<b>30</b>		
<b>Weekly/semester total</b>	<b>25</b>			<b>II SEMESTER</b>	





**Study program: Environmental Freshwater Monitoring**

Elective subject 1		L	P	ECTS	Title, name and surname of the responsible teacher and associate	Work status
1.	Microbiology of surface waters				Dr. Aleksandra Novaković, docent/ Dr. Dragan Vujadinović, associate professor Jelena Vulinović, senior assistant	part-time permanent permanent
2.	Field practice in water monitoring	3	2	6	Dr. Slađana Petronić, full prof./Dr. Aleksandra Novaković, docent Mirjana Beribaka, senior assistant/Nataša Bratić, senior assistant	permanent / part-time permanent
Elective subject 2		L	P	ECTS	Title, name and surname of the responsible teacher and associate	Work status
1.	Methodology of scientific research work in ecology				Dr. Svetlana Pelemiš, assoc. prof. /Dr. Ljubica Vasiljević, full prof. Jelena Vulinović, senior assistant	permanent
2.	EU and regional regulation in freshwater monitoring	3	2	6	Dr. Slavko Smiljanić, assoc. prof. /Dr. Ljubica Vasiljević, full prof. Jelena Vuković, assistant	permanent





#### 4. OVERVIEW OF THE WORKLOAD AND ANALYSIS OF THE NECESSARY NUMBER OF TEACHERS AND ASSOCIATES

##### 4.1. OVERVIEW OF THE FORECASTED WORKLOAD OF TEACHERS AND ASSOCIATES IN THE CYCLE OF STUDY PROGRAMS: "CHEMICAL ENGINEERING AND TECHNOLOGY" AND "BIOLOGY" IN THE ACADEMIC YEAR 2020/2021.

TEACHERS													
WORK AT THE HOME FACULTY													
No.	Name and surname	Semester	Norm	Lecture classes	Practice classes	Total	%	Aver. per semester	%	In the norm	Above the norm	Number of subjects	
												winter	summer
1	Dr. Miladin Giligorić	Winter	6	3	0	3	50	3.0	50	3.0	0.0	1	1
		Summer	6	3	0	3	50						
2	Dr. Miomir Pavlović	Winter	6	0	0	0	0	0.0	0	0.0	0.0	0	0
		Summer	6	0	0	0	0						
3	Dr. Dragan Tosković	Winter	6	6	0	6	100	7.0	117	6.0	1.0	2	3
		Summer	6	8	0	8	133						
4	Dr. Dragica Lazić	Winter	6	3	0	3	50	3.0	50	3.0	0.0	1	1
		Summer	6	3	0	3	50						
5	Dr. Branko Pejović (50%)	Winter	3	2	1	2.6	87	2.6	87	2.6	0.0	1	1
		Summer	3	2	1	2.6	87						
6	Dr. Mitar Perušić	Winter	6	8	0	8	133	6.5	108	6.0	0.5	3	2
		Summer	6	5	0	5	83						
7	Dr. Goran Tadić	Winter	6	4	6	7.6	127	6.9	115	6.0	0.9	2	2
		Summer	6	5	2	6.2	103						
8	Dr. Milorad Tomić	Winter	6	7	0	7	117	5.0	83	5.0	0.0	3	1
		Summer	6	3	0	3	50						
9	Dr. Vladan Micić	Winter	6	2	0	2	33	3.5	58	3.5	0.0	2	2





	Summer	6	5	0	5	0	5	83											
10	Dr. Ljubica Vasiljević	6	6	4	8.4	140			6.2	103	6.0	0.2	2	1					
	Winter	6	4	0	4	67													
	Summer	6	6	0	6	100													
11	Dr. Svetlana Pelemiš	6	3	0	3	50			4.5	75	4.5	0.0	3	1					
	Winter	6	5	3	6.8	113													
	Summer	6	3	3	4.8	80			5.8	97	5.8	0.0	2	1					
12	Dr. Zoran Petrović	6	4	0	4	67													
	Winter	6	2	0	2	33			3.0	50	3.0	0.0	2	1					
	Summer	3	2	3	3.8	127													
13	Dr. Slavko Smiljanić	3	8	0	8	267													
	Winter	6	5	3	6.8	113													
	Summer	6	9	3	10.8	180			5.9	197	3.0	2.9	2	4					
14	Dr. Dragan Vujadinović	6	2	5	5	83													
	Winter	6	0	5	3	50													
	Summer	6	4	4	8	80			8.8	147	6.0	2.8	2	3					
15	Dr. Milenko Smiljanić	6	5	3	6.8	113													
	Winter	6	2	5	5	83													
	Summer	6	0	5	3	50			4.0	67	4.0	0.0	2	1					
16	Dr. Dragana Kešelj	10	4	4	8	80													
	Winter	10	4	4	8	80													
	Summer	10	4	4	8	80			8.0	80	8.0	0.0	4	4					
	Ma Vesna Cvijetinović																		
	Winter																		
	Summer																		
	<b>TOTAL:</b>																		
	Winter		69	29	88				75.7		83.7	8.3							
	Summer		67	18	79.4														

#### ASSOCIATES

18	Ma Milan Vukić	10	0	5	5	50													
	Winter	10	0	5	5	50													
	Summer	10	0	12	12	120			8.5	85	8.5	0.0	2	5					
19	Ma Vesna Gojković	10	0	9	9	90													
	Winter	10	0	9	9	90													
	Summer	10	0	7	7	70			8.0	80	8.0	0.0	5	5					
20	Ma Jelena Vulinović	10	0	7	7	70													
	Winter	10	0	7	7	70			10.0	100	10.0	0.0	3	6					



21	Ma Mirjana Beribaka	Summer	10	0	13	13	130							
		Winter	10	0	8	8	80				10.0	105	10.0	0.5
22	Ma Marija Ridošić	Summer	10	0	13	13	130							
		Winter	10	0	13	13	130				10.0	100	10.0	0.0
23	Ma Danijela Rajić	Summer	10	0	7	7	70							
		Winter	10	0	9	9	90				9.5	95	9.5	0.0
24	Ma Srđan Vuković	Summer	10	0	10	10	100							
		Winter	10	0	9	9	90				6.0	60	6.0	0.0
25	Milomirka Škrba	Summer	10	0	3	3	30							
		Winter	10	0	11	11	110				11.0	110	10.0	1.0
26	Ma Maja Palangetić	Summer	10	0	11	11	110							
		Winter	10	0	9	9	90				8.0	80	8.0	0.0
27	Duško Kostić	Summer	10	0	7	7	70							
		Winter	10	0	6	6	60				7.5	75	7.5	0.0
28	Dario Balaban	Summer	10	0	9	9	90							
		Winter	10	0	11	11	110				9.5	95	9.5	0.0
29	Jelena Vuković	Summer	10	0	8	8	80							
		Winter	10	0	5	5	50				5.5	55	5.5	0.0
<b>TOTAL:</b>		Winter			102	102				<b>81.5</b>		<b>102.5</b>	<b>1.5</b>	
		Summer			106	106								





4.2. OVERVIEW OF TEACHERS' AND ASSOCIATES' WORKLOAD ON THE STUDY PROGRAM "ENVIRONMENTAL FRESHWATER MONITORING" IN THE II CYCLE OF STUDIES

TEACHERS		WORK AT HOME FACULTY											
		No.	Name and surname	Semester	Norm	Lecture classes	Practice classes	Total	%	Aver. per semester	%	In the norm	Above the norm
winter	summer												
1	Dr. Milan Kulić	Winter	6	1.5	0	1.5	25	0.75	13	0.75	0.0	1	0
		Summer	6	0	0	0	0						
2	Dr. Slađana Petronić	Winter	6	3	0	3	50	1.50	25	1.50	0.0	2	0
		Summer	6	0	0	0	0						
3	Dr. Aleksandra Novaković	Winter	6	4.5	0	4.5	75	2.25	38	2.25	0.0	3	0
		Summer	6	0	0	0	0						
4	Dr. Goran Tadić	Winter	6	1.5	0	1.5	25	0.75	13	0.75	0.0	1	0
		Summer	6	0	0	0	0						
5	Dr. Ljubica Vasiljević	Winter	6	1.5	0	1.5	25	3.00	50	3.00	0.0	1	3
		Summer	6	4.5	0	4.5	75						
6	Dr. Svetlana Pelemiš	Winter	6	0	0	0	0	1.50	25	1.50	0.0	0	2
		Summer	6	3	0	3	50						
7	Dr. Slavko Smiljanić	Winter	6	4.5	0	4.5	75	3.00	50	3.00	0.0	2	1
		Summer	6	1.5	0	1.5	25						
8	Dr. Dragan Vujadinović	Winter	3	1.5	0	1.5	50	0.75	25	0.75	0.0	1	0
		Summer	3	0	0	0	0						
<b>TOTAL:</b>		Winter		18	0	18		13.5		13.5	0.0		
		Summer		9	0	9							



#### 4.3. ANALYSIS OF THE NECESSARY NUMBER OF TEACHERS AND ASSOCIATES FOR TEACHING ON THE STUDY PROGRAM "ENVIRONMENTAL FRESHWATER MONITORING"

The analysis of the required number of permanent full-time teachers and associates at the Faculty of Technology for the implementation of the Curriculum of the II cycle of the *Environmental Freshwater Monitoring* study program was carried out on the basis of Article 3 of the Regulation on the conditions for the establishment and start of work of Higher Education Institutions and on the procedure for determining the fulfillment of the conditions.

The table below shows the required number of teachers and associates in the event that classes are held in the study program *Environmental Freshwater Monitoring* (maximum need for teaching staff).

The number of students in lecture groups (L) is 50, theoretical practice (TP) is 30 and laboratory practice (LP) is 10, and it is calculated in accordance with the provisions of the Rulebook on Standards and Norms for Financing Public Higher Education Institutions (Official Herald No. 84/14). The maximum weekly norm for teachers is 12 hours of lectures, and for associates 10 hours of practice (Article 3, paragraph 4 of the Regulation on the conditions for the establishment and start of work of Higher Education Institutions and on the procedure for determining the fulfillment of the conditions).

Comparing the number of conditionally required teachers and associates (table below) and the number of permanent full-time employees (100%) at the Faculty of Technology, it can be concluded that the condition that states that the Higher Education Institution meets the staffing requirements for starting work and carrying out activities if on each study program has full-time employment *at least half* of the total number of teachers needed to teach *all the subjects* taught, *for all the years of study*.





The required number of conditional teachers and associates for teaching in the study program "Environmental Freshwater Monitoring"

Study program	Environmental Freshwater Monitoring		
Studying year	First		
Number of first enrolled students (plan)	5		
Lectures (P), exercises (TE), lab. exercises (LE)	L	TE	LE
Group size (according to Ordinance 84/14)	50	30	10
Number of lessons per week (average at the year level)	26	10	16
Number of groups	1	1	1
Number of classes	21	6	8
<b>Total number of classes</b>	<b>21</b>	<b>14</b>	
<b>Required number of professors</b>	<b>2</b>		
<b>Required number of assistants</b>	<b>1</b>		





## 5. SPACE AND EQUIPMENT

### 5.1. DATA ON THE TOTAL USABLE SPACE

The specification of the total usable office space, as well as the average area per student, are given in the following table:

No.	Description of space	Number of rooms	Number of seats	Total area (m <sup>2</sup> )
1	Classrooms	6	280	384
2	Computer classrooms	3	35	110
3	Laboratories	6	114	393
4	Center for Food Technology	6	52	248
5	Library	1	8	50
6	Reading room	1	30	54
7	Student service	1	-	38
8	TF Student Union Office	1	5	30
9	Offices of teaching staff	26	80	602
10	Apartments	3	6	88
11	Auxiliary rooms	-	-	362
12	Entrance hall, corridors, stairs	-	-	370
13	Toilets	12	-	86

**Total area: 2815 m<sup>2</sup>**

Total number of students (without graduates): 188

**Површина по једном студенту: 12,2 m<sup>2</sup>**

14	Space under preparation	-		3657
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**Total area including the area under preparation: 6472 m<sup>2</sup>**

**Area per student (including space under preparation): 34,4 m<sup>2</sup>**



## 5.2. DATA ON LABORATORIES

The Faculty's educational and scientific research activities are carried out in modern laboratories of the Faculty of Technology and the Center for Food Technology. In the previous period, as part of the "Modernization of the University of East Sarajevo" project, the Faculty received new laboratory equipment worth about four million marks, which significantly improved the conditions for further educational and scientific research work at this institution.

Laboratories of the Faculty of Technology are:

1. Laboratory of biochemistry and organic chemistry
2. Laboratory for general and inorganic chemistry
3. Laboratory for analytical and physical chemistry
4. Chemical Engineering Laboratory
5. Laboratory for biology and microbiology
6. Laboratory for chemical technologies
7. Laboratory for environmental protection and corrosion tests
8. Laboratory for Electrochemical Engineering

Laboratories of the Center for Food Technology are:

1. Laboratory for instrumental tests
2. Laboratory for analytical tests
3. Laboratory for rheological tests
4. Semi-industrial plant for grain and flour processing
5. Semi-industrial plant for meat processing
6. Semi-industrial plant for thermal processing of food

Below is a list of some of the more important laboratory equipment available to the Faculty and the Center:

1. HPLC SYSTEM WITH UV-VIS SPECTROPHOTOMETRIC DETECTOR  
AND SPECTROFLUOROMETRIC DETECTOR
2. UV/VIS SPECTROPHOTOMETER
3. GAS CHROMATOGRAPHY with FID and ECD detector
4. GAS CHROMATOGRAPH SYSTEM WITH MASS SELECTIVE DETECTOR,  
AUTO INJECTION MODULE
5. CAPILLARY ELECTROPHORESIS
6. FTIR FOURIER TRANSFORM INFRARED SPECTROPHOTOMETER for food analyses
7. MULTITYPE ICP EMISSION SPECTROMETER SPECTRO GENESIS EOP (SOP)
8. AUTOMATIC LABORATORY REACTOR SYSTEM
9. GAS ABSORPTION COLUMN
10. HEAT EXCHANGER
11. SPRAY DRYER
12. LIQUID-LIQUID EXTRACTION UNIT
13. Floor standing cyclic corrosion test chamber
14. LASER LIGHT-SCATTERING PARTICLE SIZE ANALYZER
15. etc...





### 5.3. LIBRARY DATA

The Faculty's library occupies an area of 50 m<sup>2</sup>, which consists of a uniform exhibition and reading area with 8 reading places.

It is equipped with 4 computers at the service of users with Internet access, as well as one computer for the librarian, a printer and a scanner.

The library has 5126 library units. The library also archives graduation theses, master theses, master works, doctoral dissertations, as well as projects that the Faculty works on for business entities, the Ministry of Science and Technology, etc.

The current number of theses is 746; master theses 88; master works 35; 55 doctoral dissertations and 856 projects.

Since 2009, the Faculty of Technology, with the support of the Ministry of Science and Technology of Republic Srpska, edits and publishes the journal "Journal of Engineering & Processing Management". The journal publishes works in the fields of chemical engineering and technology, food engineering, materials, environmental protection and other related and multidisciplinary fields, whose authors are from the country and abroad. The journal publishes the following categorized papers: scientific papers, announcements, review papers, professional papers and presentations from scientific meetings, provided that they have not been printed in other journals or proceedings. Over 150 papers have been published so far.

Since 2019, the journal of the Faculty of Technology in Zvornik "Journal of Engineering & Processing Management" belongs to the first category of scientific journals in Republic Srpska.

The Faculty of Technology is a signatory to the Agreement number: 0202-2080-10/15 dated 14.10.2015. with the National and University Library of Republic Srpska, VIBRS Center, on full membership of the Faculty in the library and information system COBISS.RS. The full membership of all faculties of the University of East Sarajevo in the library and information system COBISS is currently underway.

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The previous translation from Serbian into English language was written by Lipovac Tatjana, court interpreter from Zvornik, from word to word punctually and the same signed personally and confirmed the exact translation with the stamp.

Zvornik, 17.11.2022.

Lipovac Tatjana

