FACULTY OF NATURAL SCIENCES MBU
Tajovského 40, 974 01 Banská Bystrica, fax: 048/446 7000
Student administration: 048/446 7406, e-mail: beata.dobrikova@umb.sk
http://www.fpv.umb.sk

Application deadline: until 31/ 03/ 2017 (D, E)

Date of the written admission examination:
7/ – 9/ 06/ 2017 Bachelor's and Master's Degree Studies (internal and external studies)
9/ 06/ 2017 PhD. studies (internal and external studies)

FNS open day: 9. November 2016 – during Science Week

Admission Examination Fee
For application to one study programme (written form) is **35 €**
For application to one study programme via electronic form is **32 €**

Payments are only accepted by wire transfer to the following:

Bank: Štátna pokladnica
Account: 7000095590/8180 **IBAN:** SK75 8180 0000 0070 0009 5590
Variable symbol:
1. level (Bachelor) - 5031
2. level (Master) - 5032
3. level (PhD.) - 5033
Constant symbol: 0308
Specific symbol: applicants from the Slovak Republic – birth certificate number
foreign applicants – date of birth in the following form: DDMMYY

Accredited Study Programmes Offered by the Faculty of Natural Sciences MBU in the Academic Year 2017/2018

BACHELOR'S DEGREE STUDIES						
Faculty	**Study Programme**	**Form of Study**	**Degree of Study**	**Period of Study**	**Place of Study**	**Total admitted**
Branch of Study: Chemistry						
FNS	Forensic and Criminal Chemistry	Internal	BA	3yrs	Banská Bystrica	30
Branch of Study: Geology						
FNS	Applied Geology	Internal	BA	3yrs	Banská Bystrica	15
Branch of Study: Geography						
FNS	Geography	Internal	BA	3yrs	Banská Bystrica	30
Branch of Study: Environmental Management						
FNS	Environmental Science	Internal	BA	3yrs	Banská Bystrica	25
Branch of Study: Synecology						
FNS	Ecology and protection of Ecosystems	Internal	BA	3yrs	Banská Bystrica	15
Branch of Study: Mathematics						
FNS	Mathematics	Internal	BA	3yrs	Banská Bystrica	15

BACHELOR'S DEGREE STUDIES continued							
Faculty	**Study Programme**		**Form of Study**	**Degree of Study**	**Period of Study**	**Place of Study**	**Total admitted**
Branch of Study: Applied Computer Science							
FNS	Applied Computer Science		Internal	BA	3yrs	Banská Bystrica	50
Branch of Study: Teacher training in academic subjects							
	Dual specialties (Approbation)						
FNS	Teaching of Biology	Teaching of Physics	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Biology	Teaching of Geography	Internal	BA	3yrs	Banská Bystrica	15
FNS	Teaching of Biology	Teaching of Chemistry	Internal	BA	3yrs	Banská Bystrica	15
FNS	Teaching of Biology	Teaching of Mathematics	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Biology	Teaching of English Language and Literature (*)	Internal	BA	3yrs	Banská Bystrica	10
FNS	Teaching of Biology	Teaching of History (*)	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Biology	Teaching of French Language and Literature (*)	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Physics	Teaching of Mathematics	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Physics	Teaching of Geography	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Physics	Teaching of English language and Literature (*)	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Physics	Teaching of Ethics (**)	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Physics	Teaching Citizenship Education(**)	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Geography	Teaching of Mathematics	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Geography	Teaching of History (*)	Internal	BA	3yrs	Banská Bystrica	15
FNS	Teaching of Geography	Teaching of English Language and Literature (*)	Internal	BA	3yrs	Banská Bystrica	10
FNS	Teaching of Geography	Teaching of German Language and Literature (*)	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Geography	Teaching of Slovak Language and Literature	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Geography	Teaching Citizenship Education(**)	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Chemistry	Teaching of Physics	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Chemistry	Teaching of Geography	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Chemistry	Teaching of Mathematics	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Chemistry	Teaching of English Language and Literature (*)	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Chemistry	Teaching of French Language and Literature (*)	Internal	BA	3yrs	Banská Bystrica	5

Faculty	Study Programme		Form of Study	Degree of Study	Period of Study	Place of Study	Total admitted
BACHELOR'S DEGREE STUDIES continued							
	Pedagogy cont'd: Dual specialties (Approbation)						
FNS	Teaching of Computer Science	Teaching of Biology	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Teaching of Physics	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Teaching of Chemistry	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Teaching of Geography	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Teaching of Mathematics	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Teaching of English Language and Literature	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Teaching of History	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Mathematics	Teaching of English Language and Literature (*)	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Mathematics	Teaching of Slovak Language and Literature	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Mathematics	Teaching of Ethics (**)	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Mathematics	Teaching Citizenship Education(**)	Internal	BA	3yrs	Banská Bystrica	5
Interdisciplinary Studies of the Branch of Study of Pedagogy with the Branch of Study of Pedagogy for Professional Subjects and Practical Preparation:							
FNS	Teaching of Biology	Technology	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Physics	Technology	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Geography	Technology	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Chemistry	Technology	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Technology	Internal	BA	3yrs	Banská Bystrica	5
FNS	Teaching of Mathematics	Technology	Internal	BA	3yrs	Banská Bystrica	5
Branch of Study: Pedagogy of Professional Subjects and Practical Preparation							
FNS	Teaching of Practical Preparation		Internal	BA	3yrs	Banská Bystrica	25
BA Daily Studies in Total							**445**
Branch of Study: Chemistry							
FNS	Forensic and Criminal Chemistry		External	BA	4yrs	Banská Bystrica	20
Branch of Study: Geography							
FNS	Geography		External	BA	4yrs	Banská Bystrica	20
Branch of Study: Environmental Management							
FNS	Environmental Science		External	BA	4yrs	Banská Bystrica	15
Branch of Study: Applied Computer Science							
FNS	Applied Computer Science		External	BA	4yrs	Banská Bystrica	25
Branch of Study: Pedagogy of Professional Subjects and Practical Preparation:							
FNS	Teaching of Practical Preparation		External	BA	4yrs	Banská Bystrica	30
BA External Studies in Total							**110**

MASTER'S DEGREE STUDIES							
Faculty	**Study Programme**		**Form of Study**	**Degree of Study**	**Period of Study**	**Place of Study**	**Total admitted**
Branch of Study: Geology							
PNS	Applied Geology		Internal	MA	2yrs	Banská Bystrica	15
Branch of Study: Geography							
FNS	Geography and Regional Development		Internal	MA	2yrs	Banská Bystrica	20
Branch of Study: Environmental Management							
FNS	Environmental Management		Internal	MA	2yrs	Banská Bystrica	25
Branch of Study: Synecology							
FNS	Ecology and Protection of Ecosystems		Internal	MA	2yrs	Banská Bystrica	15
Branch of Study: Mathematics							
FNS	Actuarial, Financial and Statistical Mathematics		Internal	MA	2yrs	Banská Bystrica	15
Branch of Study: Applied Computer Science							
FNS	Applied Computer Science		Internal	MA	2yrs	Banská Bystrica	30
Branch of Study: Pedagogy							
	Dual specialties (Approbation)						
FNS	Teaching of Biology	Teaching of Geography	Internal	MA	2yrs	Banská Bystrica	10
FNS	Teaching of Biology	Teaching of Physics	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Biology	Teaching of Chemistry	Internal	MA	2yrs	Banská Bystrica	15
FNS	Teaching of Biology	Teaching of Mathematics	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Biology	Teaching of English Language and Literature (*)	Internal	MA	2yrs	Banská Bystrica	10
FNS	Teaching of Biology	Teaching of French Language and Literature (*)	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Biology	Teaching of History (*)	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Physics	Teaching of Mathematics	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Physics	Teaching of Geography	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Geography	Teaching of Mathematics	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Geography	Teaching of History (*)	Internal	MA	2yrs	Banská Bystrica	15
FNS	Teaching of Geography	Teaching of English language and Literature (*)	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Geography	Teaching of German Language and Literature (**)	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Chemistry	Teaching of Geography	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Chemistry	Teaching of Mathematics	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Chemistry	Teaching of Physics	Internal	MA	2yrs	Banská Bystrica	5

MASTER'S DEGREE STUDIES continued							
Faculty	**Study Programme**		**Form of Study**	**Degree of Study**	**Period of Study**	**Place of Study**	**Total admitted**
	Pedagogy Cont'd - Dual specialties (Approbation)						
FNS	Teaching of Chemistry	Teaching of Slovak language and Literature (*)	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Teaching of English language and Literature (*)	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Teaching of Biology	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Teaching of Geography	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Teaching of Chemistry	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Teaching of Mathematics	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Mathematics	Teaching of English language and Literature (*)	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Mathematics	Teaching of German language and Literature (*)	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Mathematics	Teaching of Slovak language and Literature (*)	Internal	MA	2yrs	Banská Bystrica	5
Interdisciplinary Studies of the Branch of Study of Pedagogy with the Branch of Study of Pedagogy for Professional Subjects and Practical Preparation:							
FNS	Teaching of Physics	Technology	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Computer Science	Technology	Internal	MA	2yrs	Banská Bystrica	5
FNS	Teaching of Mathematics	Technology	Internal	MA	2yrs	Banská Bystrica	5
MA Daily Studies in Total							**290**
Branch of Study: Geology:							
FNS	Applied Geology		E	MA	3yrs	Banská Bystrica	10
Branch of Study Geography:							
FNS	Geography and Regional Development		E	Ma	3yrs	Banská Bystrica	15
Branch of Study: Environmental Management							
FNS	Environmental Management		E	MA	3yrs	Banská Bystrica	10
Branch of Study: Applied Computer Science:							
FNS	Applied Computer Science		E	MA	3yrs	Banská Bystrica	30
MA Daily studies in Total							**65**
BA and MA in Total							**910**

Notes:
In case of a lesser number of applicants for a specific study programme in external form, the faculty reserves the right not to open the programme.

(*) Interfaculty Studies in cooperation with the Faculty of Arts MBU

(**) Interfaculty Studies in cooperation with the Faculty of Education MBU

DOCTORAL STUDIES

Branch of Study Subject Didactics			Years of study
Didactics of geography	I / E	PhD.	3 / 4 yrs.
Branch of Study Synecology			
Evolution of Ecosystems and their Protection	I / E	PhD.	4 / 5 yrs.
Branch of Study Geochemistry			
Geochemistry	I / E	PhD.	4 / 5 yrs.
Branch of Study Environmental management			
Remediation of Environmental Burdens	I / E	PhD.	3 / 4 yrs.
Branch of Study Mathematical Analysis			
Mathematical Analysis (SP in both Slovak and English Language)	I / E	PhD.	4 / 5 yrs.
Branch of Study Theory of Mathematics Education			
Theory of Mathematics Education	I / E	PhD.	3 / 4 yrs.
Branch of Study Theory of Physics Education			
Theory of Physics Education	I / E	PhD.	3 / 4 yrs.
Branch of Study Probability and Mathematical Statistics			
Probability and Mathematical Statistics (SP in both Slovak and English Language)	I / E	PhD.	4 / 5 yrs.

I internal form of studies
E external form of studies

PhD. Academic title doctor philosophiae

GENERAL INFORMATION ABOUT THE ADMISSION PROCEDURE

The application is due on **31/03/2017** for both Bachelor's and Master's degree studies in internal and external form. Postmarked date will be taken into consideration. The applicant may apply for more than one study programme but the applicant may only include one study programme in each application. It is necessary to always attach a copy of proof of payment of the admission fee to the application form. Without the former, the application form will not be accepted and will be returned.

Admission examination fee is **€35** for one study programme of University studies in internal and external form **(€32** for the electronic application forms).

If the applicant applies for two and more study programmes offered by the FNS MBU, the applicant should pay **€35 fee for each study programme (€32 for each study programme** for the electronic application form).

Refunds will not be granted for applicants that do not succeed or did not take part in the admission examination.

In case of the applicant's absence from the admission examination due to a serious reason, part of the fee will be refunded once a written request is delivered to the student administration office of the faculty. The request must be postmarked before the date of admission examination.

The theses for the admission examination including the extent of required knowledge will be sent by the student administration office of the faculty along with the invitation to the admission examination.

Applicants that are accepted without an admission examination will be sent an admission decision after the student admission office has received both a secondary school

diploma and the final-year school report (for MA's degree studies, a BA diploma; for PhD's degree studies, a MA or Ing. diploma). This is in accordance to § 58 of the law. 131/2002 Coll. Students who pass the admission examination will be sent the decision regarding their admission to studies according to § 58 of the law 131/2002 Coll.

The application must contain applicants for a Bachelor's degree study:

1. The CV of the applicant,
2. A copy of the receipt for the admission proceedings fee payment (the payment must be wired, postal money orders cannot be accepted),
3. A certified copy of secondary school leaving examination certificate (in case of applicants for a Bachelor's degree study who already have a high school leaving exam certificate) .
4. The faculty does not require a medical certificate for university studies except for the study Programmes requiring practical skills within experimental teaching (i.e. teaching of Chemistry, Physics, Biology, Technical Education, Practical Preparation, Environmental Chemistry, and Applied Geology).

Applicants for a Bachelor's degree study who have secondary school leaving exam certificate in the same year as an application submission and apply for the study programme with no admission examination must deliver **a certified copy of a high school leaving examination certificate** to the faculty's Admission Office by **23 June 2017**.

The application must contain Applicants for a Master's degree study**:**

1. The CV of the applicant,
2. A copy of the receipt for the admission proceedings fee payment (the payment must be Wired, postal money orders cannot be accepted),
3. A certified copy of a State Examination Diploma pertaining to the Bachelor's study or a Confirmation of completion of a Bachelor's study (in the case of applicants for a Master's degree study who completed their studies at other universities)
4. The faculty does not require a medical certificate for university studies except for the study programmes requiring practical skills within experimental teaching (i.e. teaching of Chemistry, Physics, Biology, Technical Education, Practical Preparation, Environmental Chemistry, and Applied Geology).

CONDITIONS FOR ADMISSION

According to § 58 of the law 131/2002 Coll., the admission procedure commences once the applicant for University studies sends the application form for studies at the Faculty of Natural Sciences at MBU.

According to § 58, Section 3 b/ of the law 131/2002 Coll. all external applicants employed as volunteers, civil servants, or are in the service of agencies of special forces are required to enclose with their application a certificate of continuous employment at the time of the application. In case of a lesser number of applicants for a specific study programme in external form, the faculty reserves the right not to open the programme.

The faculty does not require a medical certificate for university studies except for the study programmes requiring practical skills within experimental teaching (i.e. teaching of Chemistry, Physics, Biology, Technical Education, Practical Preparation, Environmental Chemistry, and Applied Geology).

Foreign students must meet the aforementioned criteria, too.

Students who have completed the previous degree abroad must have the diploma recognized in the Slovak Republic. The admitted students must submit the document recognizing the diploma no later than the day of enrolment.

Admission Examination

BACHELOR'S DEGREE STUDY

In the academic year 2017/2018 the admission examination for the **Bachelor's degree programmes** in both internal and external form will be held as follows:

1. According to the guarantor of the study programme's decision, applicants can be admitted to studies with no admission examination if the number of applicants does not exceed the admission plan. The basic condition for admission will be a completed secondary education with a secondary school leaving examination.
2. If the number of applicants exceeds the admission plan for the study programme, applicants will be admitted to studies according to admission test results. In order for the applicant to successfully pass the test, the applicant must have an assessment of at least 50% from the test result (in case of a Teaching Study Programmes with a combination, the two specialisation tests must have an assessed of at least 50%).

Written tests will be given for:

- mathematics, encompassing the secondary grammar school curriculum for the study programmes **Mathematics, Teaching of Mathematics,**
- physics, encompassing the secondary grammar school curriculum for the study programme **Teaching of Physics,**
- general knowledge concerning the application of mathematics and physics for the study programme **Teaching of Technology,**
- biology, encompassing the secondary grammar school curriculum for the study programme **Teaching of Biology,**
- biology and ecology, encompassing the secondary grammar school curriculum for the study programme **Environmental Science,**
- biology and ecology, encompassing the secondary grammar school curriculum for the study programme **Ecology and protection of Ecosystems,**
- chemistry, encompassing the secondary grammar school curriculum for the study programme **Teaching of Chemistry, Environmental Chemistry, Forensic and Criminal Chemistry,**
- geography and chemistry, encompassing the secondary grammar school curriculum for the study programme **Applied Geology,**
- geography, encompassing secondary the grammar school curriculum for the study programme **Teaching of Geography, Geography,**
- mathematics and computer science, encompassing the secondary grammar school curriculum for the study programme **Teaching of Computer Science, Applied Computer Science,**
- pedagogy, encompassing the general knowledge of a secondary pedagogical school graduate, and technical application of mathematics and physics for the study programme **Teaching of Practical Preparation.**

Written tests and conditions for admission to teaching study programmes in combination, with one specialisation being provided by the Faculty of Education MBU:

- **Teaching of Ethics –** completed secondary education with secondary school leaving examination of A and B category, passing the admission examination in the form of a test which should prove applicants' general knowledge encompassing the secondary school curriculum concerning civics education: rudiments of Ethics, Political Science, and the History of Philosophy. Applicants should prove their general knowledge regarding topical issues of social and cultural life in the Slovak Republic as well as abroad. Graduates from secondary grammar schools whose average grades obtained in the final certificate in a foreign language, civics, and Slovak language and literature is not higher than 2.00 (with a higher number indicating a lower quality score), will be accepted with no admission examination.

- **Teaching Citizenship Education -** The requirement for admission to bachelor degree programs of teacher education for citizenship is the completion of secondary education completed by a form of the entrance examination on the knowledge test. In the test applicants must demonstrate sufficient knowledge of the general overview civil educational character to the extent of secondary school curriculum with a focus on an overview of the foundations of Political Science and Law, History of Philosophy and foundations of ethics, basic economics, Psychology and Sociology, the foundations of the world and national history. Applicants should also demonstrate a basic overview of current issues of social and cultural life in Slovakia.

Written tests and conditions for admission to teaching study programmes in combination, with one specialisation being provided by the Faculty of Arts MBU:

Teaching of English Language and Literature – written form of admission examination is focused on the knowledge of grammar, vocabulary, and practical communication skills (part of which will be evaluated in the traditional way):

To be assigned the maximum score from the English language in the admission procedure (without participating in the admission examination), the applicant must present the certificate obtained by completing at least one of the following examinations:

- IELTS – International English Language Testing System – minimum level 6,5,
- University of Cambridge ESOL Examinations, Certificate in Advanced English,
- University of Cambridge ESOL Examinations, Certificate of Proficiency in English,
- University of Cambridge ESOL Examinations, First Certificate in English – evaluation A,
- secondary school leaving examination (GCSE) from the English language – level B2, external part minimum of 85% + oral part - evaluation "excellent (A)",
- applicants that successfully completed the exam from the English language as a part of National Comparative Exams (NCE). The applicant has completed the NCE successfully in case he obtained a minimum percentile of 85. The applicant does not have to document the results of the NCE. However, the applicant needs to include the consent to make the NCE results available to the faculty at www.scio.cz/nsz in their application form.

Teaching of History – no admission examinationIf the number of applicants exceeds the admission plan for the study programme, the faculty reserves the right to select applicants

according to the average of grades obtained in the secondary school leaving examination (GCSE).

Teaching of the French Language and Literature – no admission examination.
Foreign language competence at a minimum of a **B2 level** according to the Common European Framework of Reference for Languages is the precondition for studying the French language and literature in all combinations of branch of study - Teaching of Academic Subjects.
If the number of applicants exceeds the admission plan for the study programme, the faculty reserves the right to select applicants according to the average of grades obtained in the secondary school leaving examination (GCSE). To be assigned the maximum score in the admission procedure, the applicant must present the certificate (certified copy) obtained by completing at least one of the following examinations:

- secondary school leaving examination (GCSE) from the French language – B2 level with the evaluation 'excellent (A)',
- in case of graduates from a bilingual sections (the French language) – result of oral and written part of secondary school leaving examination (GCSE) with the evaluation 'excellent (A)',
- French language diploma DELF (B2 level),
- French language diploma DALF (C1 level and higher),
- 1st – 3rd place at the French Language Olympiad (either in regional or national round),
- state examination in the French language issued by the State Language School.

Teaching of German Language and Literature – no admission examination
Foreign language competence at a minimum of a **B2 level** according to the Common European Framework of Reference for Languages is the precondition for studying the German language and literature in all combinations of branch of study - Teaching of Academic Subjects.
If the number of applicants exceeds the admission plan for the study programme, the faculty reserves the right to select applicants according to the average of grades obtained in the secondary school leaving examination (GCSE).

Teaching of the Slovak Language and Literature – no admission examination
If the number of applicants exceeds the admission plan for the study programme, the faculty reserves the right to select applicants according to the average of grades obtained in the secondary school leaving examination (GCSE).

MASTER'S DEGREE STUDY

The applicant for study in a **Master's degree** study programme in the academic year 2017/2018 must have completed a bachelor's degree of studies in the same or similar study programme which is being applied for.

In the academic year 2017/2018 the admission examination for **Master's degree** programmes in both internal and external form will be held as follows:

1. According to the guarantor of the study programme's decision, applicants can be admitted to studies with no admission examination if the number of applicants does not exceed the admission plan. Basic condition for admission will be a completed bachelor's degree of studies in the same or similar study programme.

2. If the number of applicant does not considerably exceed the admission plan, applicants will be admitted to studies with no admission examination according to the guarantor of the study programme's decision.
3. If the number of applicants exceeds the admission plan for the study programme, applicants will be admitted to studies in two rounds. In the first round, applicants will be admitted with no admission examination under specified conditions. In the second round, applicants will be admitted to studies according to admission test results. In order for the applicant to successfully pass the test, the applicant must have an assessment of at least 50% from the test result (in case of a Teaching Study Programmes with a combination, the two specialisation tests must have an assessed of at least 50%). Tests will be written in:

   - a pedagogical-psychological basis and subject specialisations of the study programme encompassing the bachelor's degree study curriculum for study programmes **Teaching of Biology, Physics, Geography, Chemistry, Computer Science, Mathematics, along with subject specialisations provided by the Faculty of Education or Faculty of Arts MBU,**
   - a pedagogical-psychological basis and general knowledge concerning application of mathematics and physics encompassing the bachelor's degree study curriculum for the study programme **Pedagogy of Technical Education,**
   - a natural scientific basis of the study programme Environmental management and from rudiments of environmental management encompassing the bachelor's degree studies curriculum for the study programme **Environmental Management,**
   - applied computer science encompassing the bachelor's degree studies curriculum for the study programme **Applied Computer Science,**
   - applied geology encompassing the bachelor's degree studies curriculum for the study programme **Applied Geology,**
   - mathematics encompassing the bachelor's degree studies curriculum for the study programmes **Actuarial, Financial and Statistical Mathematics,**
   - ecology, monitoring and computer systems encompassing the bachelor's degree studies curriculum for the study programmes **Ecology and Protection of Ecosystems**,
   - complex physical and human geography, physical-geographical syntheses, human-geographical syntheses, protection of nature and landscape, regional geography of Slovakia, continents and oceans encompassing the bachelor's degree studies curriculum for the study programme **Geography and Regional Development.**

Evaluation of a written admission tests to bachelor's and master's study programmes is carried out electronically. Results of the entrance examination will be published on a notice board on the Faculty's premises approximately an hour later, and posted on the faculty's website on the next day. The applicant has the right to ask about the evaluation of the written test and ask a committee of the Faculty of Natural Sciences for an explanation.

More detailed information on individual study programmes and admission examination can be found on the website of the Faculty of Natural Sciences MBU and on the websites of individual departments.

Information concerning the admission procedure for doctoral studies at the Faculty of Natural Sciences is currently published on the website of the faculty in accordance with the current Directive on doctoral studies at the Faculty of Natural Sciences MBU.

ACCOMODATION, BOARDING AND HEALTH CARE

Accommodations are to be found in the residence hall ŠD 1:

- address: Tajovského 40, 974 01 Banská Bystrica, director of the residence hall: Ing. Orlíčková Katarína, telephone: 048/4467619, e-mail: katarina.orlickova@umb.sk, information desk of the residence hall - telephone: 4467620,
- bus connection: bus n. 34, 35, 36 to Podlavice and/or Skubín, trolleybus n. 1 to the Roosevelt Hospital (bus stop *Tajovského SOU* and a five-minute walk),
- type of accommodation: triple and double rooms with shared bath and lavatory. Furnishings: bed, bed-side table, wardrobe, shelves, chair, writing desk, blanket, pillow, bed cover, and bedding. On each floor, there is a common kitchen (cooker, cupboards)
- common rooms: study rooms, V club – managed by University students.

Boarding: In the building of the residence hall ŠD 1 there is a canteen for both students and employees of MBU.
Health Care: in the premises of the residence hall ŠD 1 there is a GP and a dental office.

All requests and information regarding accommodation will be sent to applicants along with a decision on admission and other information.

THE APPLICATION OF GRADUATES

Bachelor's Degree Study

Study Programme (hereinafter referred to as SP) of the branches of study Pedagogy of Academic Subjects and Pedagogy of Professional Subjects and Practical Preparation

Graduates can work as a teaching assistant in both lower and higher secondary education but in the first place, they are ready to successfully continue with a master's degree studies of the same or similar study programme.

SP – Teaching of Practical Preparation

A graduate is qualified for teaching professional subjects that are mainly focused on acquiring practical skills, habits and craft in a given professional field of education and study. The graduate is prepared to organize, plan and teach practical training with professional knowledge at a Secondary Vocational School within Vocational Training or Practice.

SP – Applied Computer Science

A graduate is able to analyse, design, create and maintain software information technology systems creatively and independently. There is an emphasis in this study programme placed on acquiring knowledge in the field of software systems enabling the graduate to apply information technology software applications in industry, economy, health care and other areas. The graduate will acquire experience by applying methods of analysis and synthesis of the software systems, through experimental design on the basis of analysing the data obtained, etc. The graduate can carry out scientific work across a whole range of information technology software applications by employing design and programming advanced methods and techniques. The graduate will not only be able to put his knowledge into practice after their studies, but also successfully continue their Master studies in Applied Informatics.

SP – Environmental Science

A graduate has sufficient theoretical and practical knowledge of environmental management systems, Slovak and EU environmental law and legislation. The graduate gains a fundamental knowledge of issues concerning environmental protection in an economic context. They become an environmental manager with a strong knowledgeable basis of natural sciences, commanding basic principles on technical solutions, pedagogical psychology tools to shape public opinion and guide society towards a sustainable way of life. The graduate can work as an environmental instructor, coordinator or adviser on public relations in protected areas, state administration, local authorities, in the third sector and eco-centres.

SP – Forensic and Criminal Chemistry

The graduate has adequate theoretical and practical knowledge in selected chemical disciplines (general, inorganic, analytical, physical, organic, nuclear chemistry, chemistry of toxic substances, and biochemistry) but also has knowledge in physics, mathematics, human anatomy, genetics, forensic science and criminology, which he may apply in the practice. He is able to work independently especially in the field of chemical analysis and can carry out basic tasks in the field of criminology, civil protection, fire and rescue service and the armed forces.

P – Applied Geology

A graduate acquires the basic vocational knowledge of General Geology, General and Systematic Mineralogy, General and Systematic Palaeontology, Historical and Stratigraphic Geology, Structural Geology, the Petrography of the Igneous and Sedimentary Rocks, Sedimentology, Geochemistry and Mineral Deposits, Hydrogeology and Environmental Geology. The graduate of the study programme is an expert, apart from geology, in a wide spectrum of subject-related fields of study. The graduate will be able to independently handle literature and perform basic assessment activity in the field of geology, or abiotic components of the environment. Graduates of a Bachelor's study may also work in digitization and graphical evaluation of geological data in the institutions of government, municipalities, museums, established companies in the environmental state and private sector. The graduate will be prepared to continue the follow-up master study of geology and related fields.

SP – Geography

A graduate is able to consider the issues and possibilities of the country sphere on different hierarchical levels. The graduate becomes an expert in land management. Studying this programme, they have many possibilities to work in various sectors of the economy, state administration, private sector, etc. There is a high likelihood of getting a job in the management of national parks, protected areas and local government.

SP – Mathematics

A graduate acquires the basic theoretical knowledge of Mathematics enabling them to supplement education with self-studies, if necessary. The graduate understands fundamental mathematical and statistical methods and the way they are applied in practice. The graduate is also able to apply the knowledge of Statistics to solve individual tasks for the collection and analysis of data in basic statistical models. The graduate becomes familiarized using computer technology and with software functions used in statistically-oriented departments or in the financial and insurance sectors. The graduate is prepared to continue their Master studies in Mathematics or other subject-related fields of study, as well as working in various industrial sectors, state administration and the private sector.

SP – Ecology and Environmental Protection

A graduate acquires the fundamental knowledge of the Slovak biota, structure and behaviour of organisational units such as population or country, including the abiotic variables of the environment. Moreover, they become familiar with the ecological requirements for a specific group of organisms and their bioindication potential. The graduate becomes skilled in general and in particular, nature protection at the theoretical and practical level, as well as in nature and country protection legislation, including its support through institutions.

Master's Degree Study

SP of the department of Pedagogy of Academic Subjects and Teaching of Professional Subjects and practical preparation

Graduates possess the ability to teach the respective specialisation at lower and higher levels of secondary education as well as University education. In addition to this ability, they are able to manage the development of one of many methodical materials necessary for teaching the respective subject. They will possess competency in methods regarding research and development within subject didactics and are ready to continue their education in Doctoral studies.

A graduate in the Teaching of Technology is competent to teach subject Technology at the lower-secondary education level. It allows the graduate to become skilled in the field of Wood Technology, Mechanical Engineering, Electrical Engineering, Electronics, Cybernetics and the Didactics of Technics.

SP – Applied Geology

The graduates possess knowledge in theoretical and practical foundations of geology, and understand ongoing processes in the lithosphere, are familiar with the basic methods in applied geological fields, and have mastery of the basics of a broad spectrum of related disciplines (GIS, pedology, anthropogenic load, ecology, geography, etc.). They will have both theoretical and practical knowledge of the latest research methods related to rocks and minerals, allowing them plenty of career opportunities in the labour market. The master's degree graduate can also work on the digitisation and graphical evaluation of geological data within the institutions of state administration, municipalities, museums, as well as environmentally established companies in the state and private sector.

SP – Environmental Management

The graduate has a basic knowledge of a progressive management system, decision making, the coordination and supervision of resources, processes and relationships of organizations focused on solving environmental challenges. The graduate is familiarized on using the systems of environmental management and environmental auditing in productive and non-productive organizations. They draw up and employ education and training programmes to deal with the negative impacts of society on the environment. They are able to coordinate the activities of stakeholders to address environmental problems both at the regional and local level.

SP – Applied Computer Science

Graduates are able to analyse; design, implement and maintain software systems and information technology and to conduct research in the respective field with a high level of creativity and independence. The emphasis is put on the acquisition of a deep knowledge of software systems, allowing them to use the application of computer science in industry,

economy, education, health care and other industries. In order for the graduate to use a rigorous scientific approach, they will gain experience in the application of the methods of analysis and synthesis of software systems, formulating and testing hypotheses, experimental design based on analysis of data, etc. The graduate can work as a scientific researcher encompassing software applications of information technologies, where they can apply advanced methods and techniques in design and programming.

SP – Actuarial Science, Financial Mathematics and Mathematical Statistics

The graduate is qualified for applying modern methods of Financial Mathematics, Statistics, Econometrics, Numerical Mathematics, etc., in practice. Each graduate has a knowledge of fundamental mathematical and statistical methods and the way they can be applied in practice. They acquire the abilities to employ computer technology (with a particular emphasis on System R) and know all the ways in which they can apply the software used in statistically-oriented departments, as well as in the financial and insurance sector. The graduate can find employment in the financial and insurance sector as an actuary or financial analyst, as well as in various economic sectors as a statistician and data analyst.

SP – Ecology and Environmental Protection

The graduate is able to deal with difficult tasks included in ecological research on their own both in basic and applied form. They supplement the theoretical knowledge of Ecology with a practical knowledge of research methods aimed at plant communities and animal populations. The graduate is able to apply modern research methods to evaluate their state and forecast their further development. Moreover, they are prepared to synthesize the results achieved in the form of models, using methodology based on geographical information systems. The graduate becomes an expert, who is not only able to understand in practice the fundamental function of ecological data, but also process them on their own in databases and graphical outputs. In practice, at least two workers are usually necessary to handle this activity.

SP – Geography and Regional Development

Graduates will gain knowledge and skills regarding the recognition of regions of different hierarchal levels. Their knowledge base is the basic concept of region, or micro-region. They have the ability to use this knowledge and skills in the area of regions of higher hierarchical orders (NUTS 3, NUTS 2, and NUTS 1). They can creatively use identified geographic phenomena and processes to determine the direction that their development should be aimed at. The graduates are able to independently and creatively explore the particularities of each region, as well as to generalise the results of their own research. They will acquire the concept of teamwork and will be able to coordinate research groups focused on research of regions, natural sciences, and humanities being at intersection. Graduates are fully prepared to identify, evaluate and prioritize the potential of regions from all aspects, with emphasis on socio-economic conditions with regard to natural and environmental character of regions. Career opportunities in the labour market can vary: state and public administration, through institutions involved in regional development and planning, as well as institutions related to economic, demographic, and environmental issues. Foreign institutions might be another possibility, e.g. within the EU or even beyond.

UNIVERSITY STUDIES AT THE FACULTY OF NATURAL SCIENCES MBU, ORGANISATION AND COURSE OF STUDIES

University studies are based on the ECTS credit system, a tool that helps to evaluate and manage the studies. University education is realised within accredited study programmes

in a bachelor's (three-year) and master's (two-year) degree, and doctoral studies (a three-, four- or five-year degree). Study programmes are realised in internal or external form by in-class or distant methods of learning.

The Faculty of Natural Science MBU presents itself as an educational institution whose aim is to educate future teacher of academic subjects and professional subject and practical preparation as well as experts in the non-educational area. The Faculty is a leading institution in Central Slovakia thanks to its varied and professional specialisation in the area of natural sciences and ecology. Excellent students are offered the possibility to study abroad within the Erasmus Programme (e.g. at Universidad de Murcia in Spain, Oulu University of Applied Sciences in Finland, Friedrich Schiller University of Jena in Germany, etc.).

Study programmes in the Pedagogy of Academic Subjects and the Pedagogy of Professional Subjects and Practical Preparation is usually realised as a combination study in two specialisation subjects or as a one specialisation subject at a master's level. The future teachers who wish to teach one more specialisation are provided with the continuing education in external form by the Faculty, as stated in the legislation in force.

The future teachers are prepared for teaching at the secondary level of primary schools, secondary grammar schools and secondary vocational schools. Their pedagogical qualification is guaranteed by the courses of pedagogical-psychological basis, by passing didactic professional courses, and by classroom experience and (continuous) pedagogical practice.

Graduates of the non-teaching study programme of Environmental Chemistry, Environmental Management, System Ecology, Geography and Landscape Ecology, Mathematics, Mathematical Statistics and Financial Mathematics, Applied Computer Science, and Applied Geology become experts in the practice.

The Doctoral study programmes of Mathematical Analysis, Probability and Mathematical Statistics, Theory of Mathematics Education, Evolution of Ecosystems and their Protection are focused on the graduates' acquirements in the latest scientific findings reflecting the current state of scientific research in the respective study programme.

Lectures and seminars in all study programmes are given within the premises of the Faculty of Natural Sciences MBU in Banská Bystrica. As for material-technical support, it fully corresponds to a degree of study and to a specialisation of the accredited study programme. Lectures and seminars are held in lecture halls, specialised classrooms used for experimental teaching of computer science, engineering and technologies, chemistry, physics, biology; computer classrooms, GIS classroom, collections, and libraries of the individual departments. The building houses the University Library with reading rooms of specialised magazines, periodicals, with audio-visual equipment and access to on-line library system. In addition to specialised classroom, Internet access is provided within the premises of the Faculty.

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