Description of the study programme	
Name of the higher education institution	*Matej Bel University in Banská Bystrica*
Address of the institution	*Banská Bystrica*
Identification number of the higher education institution	*CRN: 30232295 / School ID: 714 0000 00*
Name of the faculty	*Faculty of Natural Sciences of Matej Bel University (FNS MBU) in Banská Bystrica*
Address of the faculty	*Tajovského 40, Banská Bystrica*
Institution body for approving the study programme:	Board for the Internal Quality System (BIQS) of MBU FNS MBU Board of Quality
Date of the study programme approval or the study programme modification:	FNS MBU Board of Quality (modification of the study programme): 3 March, 2022 MBU BIQS (approved study programme): 2 June 2022
Date of the latest change to the study programme description:	-
Link to the results of the periodical evaluation of the study programme performed by the higher education institution:	-
Link to the evaluation report pertaining to the request for accreditation of study programme pursuant to Art. 30 of Act No. 269/2018 Coll.:	–

1. Basic information about the study programme	
a) Name of the study programme	Number according to the register of study programmes
Mathematical Analysis	**100595**
b) Level of higher education	ISCED-F education level code
Doctoral level	864 – doctoral study programme
c) place(s) of delivery of the study programme:	**Tajovského 40, Banská Bystrica**

d) name and number of the field of study in which higher education is obtained by completing the study programme, or a combination of two fields of study in which higher education is obtained by completing the study programme, ISCED-F codes of the field/fields.

Number and name of the field of study:	**1113 Mathematics**	field of study ISCED-F codes	**0541 Mathematics**

e) type of the study programme: academically oriented, professionally oriented; translation, translation combination study programme (listing the specializations); teaching, teaching combination study programme (listing the specializations); artistic, engineering, doctoral, preparation for regulated occupation, joint study programme, interdisciplinary studies.

Type of study programme:	**doctoral studies (PhD)**	Teaching qualification:	**-**
f) Awarded academic title:		**„doctor" („philosophiae doctor", abbreviated as „PhD.")**	
g) Form of study:		**external**	

h) In the case of joint study programmes, cooperating institutions and the range of study obligations the student fulfils at each of the given institutions (§ 54a of the Act on Higher Education Institutions).

Extent of the student's obligations at MBU:

Cooperating higher education institution:	

Extent of the student's obligations at the cooperating higher education institution:

i) Language or languages in which the study programme is delivered:	**Slovak, English**
j) Standard length of the study expressed in academic years:	**5**

k) Capacity of the study programme (planned number of students), the actual number of applicants and students:	**0-2 admitted students per year, currently there are 5 students in 4 years in total**

2. Graduate profile and learning objectives

a) The institution defines the learning objectives of the study programme such as students' abilities at the time of completion of the programme and the main learning outcomes.

Graduates of Mathematical Analysis doctoral study programme are able to achieve previous scientific results. They have broad theoretical and general knowledge of selected uses with significant value. They are able to independently read demanding publications and grasp them theoretically and practically, and efficiently use their findings in solving theoretical and practical problems. They are able to present to the scientific community their own findings together with other research. They have pedagogical experience with teaching at university.

Graduates are able to perform their job as university teachers of mathematics, as well as scientific and research workers in mathematics. They track not only the current development in their field, but are able to adapt to other scientific disciplines in mathematics, as in other sciences using mathematical methods.

Knowledge:

- Students have broad general knowledge of mathematical disciplines in the field of mathematical analysis,
- They have deep theoretical knowledge in a more specific field of mathematical analysis according to the focus of their dissertation (dynamic systems, real analysis, differential equations, etc.),
- they know the methods of scientific work within their specialization and related fields.

Skills:

- efficiently use the latest existing scientific results when solving theoretical as well as practical problems,
- create mathematical models of natural phenomena and socio-economic processes using tools linked to the focus of their dissertation theses (dynamic systems, differential equations, etc),
- stay in contact with the scientific development in the narrow focus of their dissertations at minimum,
- ability to independently extend theoretical knowledge in a broader spectrum of mathematical disciplines,
- use book and magazine scientific literature as well as sources on the Internet for research purposes,
- ability of independent research in various fields of mathematical analysis,
- publish scientific work within the specialization,
- present research results in seminars and conferences at home and abroad,
- teach mathematical analysis and other mathematical disciplines at university.

Competences:

- the ability to communicate with professionals in mathematics and other practitioners within the field,
- the ability to use non-standard approaches in order to creatively address theoretical or practical problems,
- the ability to organise and plan work,
- adhering to the ethics of scientific work.

b) List of occupations for which graduates are prepared upon graduation and the study programme potential in terms of its graduates' employability.

University teacher

Research worker in Mathematics field of study

212 Specialists in mathematics, insurance mathematics and statistics

c) Relevant external stakeholders who have provided a statement or a favourable opinion on the compliance of the acquired qualification with the occupation's sector-specific requirements.

Mathematical Institute of the Slovak Academy of Sciences (SAS)

Beset spol. s r.o., Jelenia 18, 811 05 Bratislava

3. Graduate employability

a) Evaluation of the study programme graduates employability.

Since 2000, there have been in total 26 students in Mathematical Analysis field of study, mainly on internal study. 7 out of them did not complete their studies (this was mostly true in the first years of the study programme; back then, mass character of doctoral studies was supported by the state authorities). So far 14 students have successfully completed their studies (5 more are still studying). All of them have found employment, some abroad. From all 14 graduates, 7 graduates currently teach at universities, 1 works for the SAS, the rest works in businesses inside and outside of the country.

b) List of successful graduates of the study programme

Selected successful graduates who completed external form of study:

- Pavol Král (MBU Faculty of Economics),
- Vladimír Špitalský (associate professor on the Department of Mathematics at FNS MBU),

Selected successful graduates who completed internal form of study:

- Katarína Lendelová (MI SAS),
- Alžbeta Michalíková (Department of Computer Science at FNS MBU),
- Matúš Dirbák (Department of Mathematics at FNS MBU, undergoing habilitation procedure),
- Kan Hu (School of Mathematics, Zhejiang Ocean University, People's Republic of China),
- Naer Wang (School of Mathematics, Zhejiang Ocean University, People's Republic of China),
- Vladimír Kobza (Department of Mathematics at FNS MBU)

c) Employers' evaluation of the study programme quality (feedback)

Quality assessment of the study programme has been performed by employers who created evaluation reports attached to the accreditation file.

4. Structure and content of the study programme

a) The rules for designing the study programme curricula

The rules for the design of study plans within this field of study are specified in Directive No. 1/2021 Creation, modification and approval of study programmes and submission of applications to the Slovak Accreditation Agency for Higher Education,

b) Recommended study plan for individual study paths	*Matematicka_analyza_PhD(D,SK)_Studijny_plan.docx*
c) Credit distribution	
The total number of credits required for the successful completion of the study:	240 (80 = study part; 160 = scientific part)
Non-teaching study programmes (specify the credit allocation to the individual components)	
Number of credits for compulsory courses:	161 (from this number: 20 for doctoral examination and 40 for dissertation defence)
number of credits for professional practice	-
Number of credits from elective courses:	79
Number of credits for optional courses:	any
Number of credits for the state examination	60 (20 = doctoral examination; 40 = dissertation defence)

d) Other requirements that the student must meet within the study programme for its proper completion, including the requirements for state examinations, rules for repeat study and rules for the extension and interruption of study.

e) Rules for verifying the learning outcomes, student assessment and the possibilities of appealing against the assessment.
f) conditions for recognition of studies or a part of studies.

The requirements and rules for successful completion of the study and state examinations as well as other study-related rules are defined in the Faculty of Natural Sciences (FNS) MBU Study Regulations.
Link: https://www.fpv.umb.sk/studium/pre-studenta/studijny-poriadok-a-ine-dokumenty/studijny-poriadok.html

One of the important "courses" in the scientific part of study is a "publication registered in WoS or Scopus databases (at least in printing queue before the dissertation defence)".

g) Final thesis topics of the study programme

Topics currently being researched (internal form of study):

- *Topological Dynamics on One-dimensional Continua (**Mgr. Michaela Mihoková, supervisor: doc. RNDr. Vladimír Špitalský, PhD.**)*
- *Dense Orbits in Dynamic Systems (**Mgr. Miroslav Výbošťok, supervisor: doc. RNDr. Roman Hric, PhD**.)*
- *Recurrent Quantitative Analysis (**Mgr. Miroslava Poláková, supervisor: doc. RNDr. Vladimír Špitalský, PhD.**)*
- *Mappings on Bounded Lattices Applied in Multivalued Logics (**Mgr. Michaela Bruteničová, supervisor: prof. RNDr. Vladimír Janiš, CSc.**)*
- *Convexity in Ordered Structures (**Pedro Huidobro, supervisor: prof. RNDr. Vladimír Janiš, CSc.**)*
- *Generalised Compact-Open Topology on Partial Functions (**supervisor: doc. RNDr. Ľubica Holá, DrSc.)***
- ***Non-compact Dynamics (supervisor: Doc. RNDr. Roman Hric, PhD.)***
- *Spojitostné vlastnosti multifunkcií (**školiteľ doc. RNDr. Milan Matejdes, CSc.)***
- *Fragmented Topological Spaces and Projections (**supervisor: doc. RNDr. Milan Matejdes, CSc**.)*
- *Stroboscopic and Collective Dynamics (**supervisor: prof. RNDr. Ľubomír Snoha, DSc., DrSc**.)*

h) Other rules and procedures related to studies

Rules for the assignment, processing, review, defence and assessment of final theses in the study programme

Rules for the assignment, reviewing, defence a assessment of final theses are defined in the FNS MBU Study Regulations
link: https://www.fpv.umb.sk/studium/pre-studenta/studijny-poriadok-a-ine-dokumenty/studijny-poriadok.html
Detailed rules for the writing of final theses are specified in Directive No. 9/2021 on final, rigorous, and habilitation theses at MBU in Banská Bystrica
link: https://www.fpv.umb.sk/studium/pre-studenta/zaverecne-prace-a-statne-skusky.html

Opportunities and procedures for participation in student mobility

The opportunities and conditions for participation in mobility are defined in Directive No. 2/2017 on mobilities abroad at the FNS MBU in Banská Bystrica. Other relevant information related to mobility opportunities is available at the faculty website.
link: https://www.fpv.umb.sk/medzinarodne-vztahy/mobility-erasmus/

The rules for adherence to academic ethics and consequences of non-adherence.

At MBU, there is an Ethics Committee, which addresses the questions and issues related to adherence to academic ethics (employees and students). Relevant information related to Ethics Committee and its activity can be found on the university website.
link: https://www.umb.sk/univerzita/univerzita/o-univerzite/akademicka-etika-umb/eticka-komisia/

Procedures applicable to students with special needs

Students with special needs follow the Study Guide for Students with Special Needs published at the university website.
link: https://www.umb.sk/studium/student/student-so-specifickymi-potrebami/informacie-pre-studentov-so-specifickymi-potrebami.html
FNS MBU has an SSN Coordinator who supports students with special needs and helps them adapt to the university environment, and resolve any study-related issues.
link: https://www.fpv.umb.sk/studium/pre-studenta/studijny-poriadok-a-ine-dokumenty/sprievodca-studiom-pre-studentov-so-specifickymi-potrebami.html

Procedures for filing complaints and appeals by students

Complaints and appeals related to studies, results assessment may be addressed in written form/request filed to the Vice-Dean for Pedagogical Activities. Requests for a board examination, if any, are complied with according to academic regulations of FNS MBU.
link: https://www.fpv.umb.sk/studium/pre-studenta/studijny-poriadok-a-ine-dokumenty/studijny-poriadok.html
Complaints related to violation of the Code of Ethics can be submitted directly to the Ethics Committee in writing.
link: https://www.umb.sk/univerzita/univerzita/o-univerzite/akademicka-etika-umb/eticka-komisia/

5. Course information sheets of the study programme

Link:	*Matematicka_analyza_PhD(D,SK)_Informacne_listy.docx*

6. Current academic year plan and the current timetable (or a hyperlink).

Year plan:	*https://www.fpv.umb.sk/studium/pre-studenta/harmonogram-studia.html*
Timetable:	*https://www.fpv.umb.sk/studium/pre-studenta/rozvrhy-hodin/*

7. Staff responsible for the study programme

a) Person responsible for the delivery, development, and quality of the study programme (including their position and contact details).

Full name (including titles)	**prof. RNDr. Ľubomír Snoha, DSc., DrSc.**
Position:	member of the Department of Mathematics
Telephone number:	048/4467229
E-mail:	lubomir.snoha@umb.sk

b) List of persons responsible for the profile courses of the study programme

Full name (including titles)	*List of profile courses*	*Contact (telephone/e-mail)*
prof. RNDr. Ľubomír Snoha, DSc., DrSc.	*Dynamic Systems, Ergodic Theory, Functional Analysis*	048/4467229 lubomir.snoha@umb.sk
prof. RNDr. Vladimír Janiš, CSc.	*Fuzzy Mathematical Analysis, Functional Analysis*	048/4467228 vladimir.janis@umb.sk
prof. RNDr. Miroslav Haviar, CSc.	*Topology*	048/4467224 miroslav.haviar@umb.sk
doc. RNDr. Roman Hric, PhD.	*Differential Equations, Ergodic Theory, Complex Analysis, Measure and Integral*	048/4467230 roman.hric@umb.sk

doc. RNDr. Vladimír Špitalský, PhD.	*Topology, Dynamic Systems, Real Analysis*	048/4467227 vladimir.spitalsky@umb.sk
c) List of teachers in the study programme		
Full name (including titles)	*List of courses (excluding the abovementioned courses)*	*Contact (telephone/e-mail)*
prof. RNDr. Ľubomír Snoha, DSc., DrSc.	Methodology and Ethics of Scientific Work	048/4467229 lubomir.snoha@umb.sk
doc. RNDr. Roman Hric, PhD.	Methodology and Ethics of Scientific Work	048/4467230 roman.hric@umb.sk
Seminar Instructor	Scientific Seminar 1-8, another scientific seminar	
principal investigator	Participation in a research grant project in the first/second/third year (researcher)	
supervisor	Scientific Seminar 1-8, publication registered in WoS or Scopus databases, State Examination, all elective courses of the scientific part	
c) List of the supervisors of final theses of the study programme		
Full name (including titles)	*The list of current dissertation theses topics*	*Contact (telephone/e-mail)*
doc. RNDr. Vladimír Špitalský, PhD.	Topological Dynamics on One-dimensional Continua Recurrent Quantitative Analysis	048/4467227 vladimir.spitalsky@umb.sk
doc. RNDr. Roman Hric, PhD.	Dense Orbits in Dynamic Systems	048/4467230 roman.hric@umb.sk
prof. RNDr. Vladimír Janiš, CSc.	Mappings on Bounded Lattices Applied in Multivalued Logics Convexity in Ordered Structures	048/4467228 vladimir.janis@umb.sk
Link to the staff register:	https://www.portalvs.sk/regzam/?do=filterForm-submit&university=714000000&faculty=714070000&sort=surname&employment_state=yes&filter=Vyh%C4%BEada%C5%A5	
Link to the RATPs of university staff:	https://ais2.umb.sk/ais/start.do	

d) List of students representing the interests of students of the study programme:	
Full name (including titles)	*Contact (telephone/e-mail)*
Students:	
Mgr. Michaela Mihoková	*michaela.mihokova@umb.sk*
Mgr. Miroslav Výbošťok	*miroslav.vybostok@umb.sk*
Graduates:	
Mgr. Michal Takács, PhD.	*miskota@gmail.com*
RNDr. Pavol Kráľ, PhD.	*pavol.kral@umb.sk*

f) Study advisor of the study programme		
Full name (including titles)	*Contact (telephone/e-mail)*	*Link to the webpage with consulting hours*
RNDr. Katarína Sebínová, PhD.	048/4467223, katarina.sebinova@umb.sk	https://www.fpv.umb.sk/ksebinova/

f) Supporting staff of the study programme	
Study Officer	
Full name (including titles)	*Contact (telephone/e-mail)*
Mgr. Jana Smolecová	048/4467407 jana.smolecova@umb.sk
International Relations Officer (mobilities)	
Full name (including titles)	*Contact (telephone/e-mail)*
Mgr. Viera Pavlovičová	048/4467439 viera.pavlovicova@umb.sk

8. Spatial, material, and technical provision of the study programme and support

a) List and description of the study programme classrooms and their technical equipment with a view to learning outcomes and courses (laboratories, design and art studios, other studios, workshops, interpreting booths, clinics, seminaries, science and technology parks, technology incubators, school enterprises, practice centres, training schools, classroom-training facilities, sports halls, swimming pools, sports grounds).

Department of Mathematics at FNS MBU has a total of 14 offices, a secretariate office and a common room featuring one part of the department's library (newer books). The second and third sections of the library (older books) are located in the other two offices. The department offers for teaching purposes one computer-equipped laboratory, a seminar room, four classrooms with a high-quality ceramic pylon boards and one tiered multimedia lecture room with a capacity of approximately 90 people equipped with a board, an interactive board and other specialised equipment making organised videoconferences available.
Within the SIVVP (see http://www.hpcc.umb.sk/), Department of Mathematics at FPV UMB has (see http://www.hpcc.umb.sk/) access to the cluster for high-performance computers with the total number of 288 counting cores, performing at around 3 TFLOPS and storing capacity of approximately 100 TB. Cluster is connected to various other computing systems (grids). Multiple high performance computing systems are currently installed on the cluster, along with a set of program compilers. All MBU employees and students alike may, after registering, use the computing capacity of the cluster and the installed software for research and study purposes.
All rooms on the Department of Mathematics are equipped with computers with internet access. All academic staff members are given their own PC with unlimited access to the internet, and through the university library, they have the access to mathematics and statistics journal literature from publishers such as Elsevier, Springer and others, along with the databases (e.g. ISI Web of Knowledge, Scopus). The Department of Mathematics at FNS MBU features a computer laboratory for the needs of performing research grant tasks; this laboratory is used for teaching purposes as well. Technical parameters of the computer laboratory of the Department of Mathematics (room No. 237) Devices: 12 stations with the following configuration: HP Touchsmart 600-1030cs T6400 (2.0GHz), 23" NV9400 chipset, 4GB, 500GB, DVDRW, WireLess, BlueTooth, Windows 7 Premium, wired keyboard, wired mouse.

b) information management of the study programme (access to study literature listed in course information sheets, access to information databases and other information sources, information technologies, etc.).

Library and information services are also provided by the University Library of Matej Bel University at the central workplaces at Tajovského 40 and 51 and at dislocated workplaces on each faculty, also in a form of partial libraries in the departments. The university library provides absence and presence book loans, consulting, research, reference service, copying, and Internet access 54 hours/week plus online services and access to electronic information sources 24/7.
The library collection contains over 277,000 scholarly and specialized monographs, textbooks, edited volumes, encyclopaedias, dictionaries and other types of documents. Acquisition is managed in cooperation with teachers according to the current academic and scholarly duties of the university. The collection also includes 251 periodicals, 120 of which are from abroad. Final theses and other qualification theses defended at the university have been available online since 2009. Over 700 textbooks and study materials published by the university press are available via the MBU Virtual Reading Room.
The University Library manages access do databases courtesy of national grants – Web of Science and Scopus scientometric databases, and full-text scholarly publication databases e.g. ACM, ProQuest Central, ProQuest Ebook Central, ScienceDirect, SpringerLink, Springer Nature, Wiley Online Library. Using its own funds, the library also offers access to the Cambridge Journals and Emerald full-text databases, and educational videos on the HSTalks platform.
The General Reading Room at Tajovského 51 features a reference collection of over 16,500 printed documents and 134 periodicals. All fields of study are covered. Office hours: Monday – Wednesday (8.30 am – 9.00 pm), Thursday – Friday (8:30 am – 4:00 pm). European Documentation Centre is a part of the reading room. The study room also manages the deposit of printed final and qualification theses.
The Circulation Branch at Tajovského 40 St is the library's central branch for circulation services, allowing users to borrow from a collection of over 87,000 library documents. Office hours: Monday to Friday, 9:00 am to 4:00 pm. Interlibrary loan services are also offered.
Department of Mathematics also offers a partial library with over 6000 books and multiple periodicals on long-term subscription agreements. From the perspective of mathematical literature coverage, this library is one of the best in the country. The library is continually extended with important titles from mathematical disciplines linked to teaching as well as activities of its members. Students have free access to the library upon agreement at the department's secretariate.

c) Characteristics and extent of distance education applied in the study programme courses Access to and manuals of e-learning portals. Procedures for the transition from contact teaching to distance learning

Since the number of students in each year is low (0-2), forced transitioning to distance learning can be done rather smoothly. During the COVID-19 pandemic, MS Teams was used along email for communication purposes.

d) Partners of the institution in providing educational activities for the study programme and the nature of their participation

External supervisors (Mgr. Juraj Holos a successful graduate led by doc. Ján Borsík from IM SAS Košice). Scientific seminar (a new course, 8 semesters), or another scientific seminar may be completed by doctoral candidates elsewhere, based on the offer of seminars and the students' interest (e.g. as Mgr. Michaela Bruteničová completed a seminar in fuzzy mathematical analysis, while on her stay in Universidad de Oviedo).

e) Opportunities for social, sport, cultural, spiritual and social activities

The university offers other opportunities besides education in various study programmes. Students may participate in various cultural, sport, spiritual activities. At the university there are several sports clubs, art ensembles, students may even use university sports grounds. There is also the University Pastoral Centre. All information related to the mentioned opportunities can be found at the university website.
link: https://www.umb.sk/studium/student/volny-cas/
link: http://upcbb.sk/o-upc/kto-sme/

f) Opportunities and conditions for participation of the students of the study programme in mobility opportunities and internships (indicating contact details), application instructions, rules for recognizing such education

Other relevant information related to mobility opportunities is available at the faculty website.
link: https://www.fpv.umb.sk/medzinarodne-vztahy/mobility-erasmus/
Each department has its own mobility coordinator for students, who offers the students introductory information about mobility opportunities for them and directs them during other related activities and formal processing.
link: https://www.fpv.umb.sk/medzinarodne-vztahy/mobility-erasmus/koordinatori-programu-erasmus.html

9. Required abilities and admission requirements for the study programme applicants

a) Required abilities and necessary admission requirements

Opportunities and admission requirements for study, as well as syllabuses of admission proceedings for individual study programmes for the following academic year are described in Opportunities and requirements of admission to study for the year xx/xx.
link na aktuálny dokument: https://www.fpv.umb.sk/studium/pre-uchadzaca/podmienky-prijatia-na-studia-v-roku-2022-2023/

The primary requirement for applicants is a Master's degree study completed in the Mathematics field of study, or a related field (e.g. Teaching of Mathematics). Students are also required to have creative problem-solving skills when approaching mathematical problems, thorough knowledge of university-level mathematics – predominantly mathematical analysis – in the extent of bachelor's and master's study programmes. They are expected to have high working pace and efficient work distribution skills. Another requirement is a good command of the English language which will allow students to study mathematics literature in English. Applicants are expected to be also highly motivated.

b) Admission procedures

Procedures and requirements of admission proceedings are specified in the FNS MBU Study Regulations.
link: https://www.fpv.umb.sk/studium/pre-studenta/studijny-poriadok-a-ine-dokumenty/studijny-poriadok.html

Before admission proceedings to doctoral studies begin, the faculty announces dissertation topics, which applicants may apply for during the admission proceedings. Each of the listed topics has a supervisor assigned (dissertation theses topics may be further specified in the preparatory phase). Doctoral studies applicants must enrol on one of the listed topics. Successful admission examination is required for a student to be admitted. Admission board consists of a chairman with another two members, appointed by dean, based on the chairman's recommendation. Supervisor of the announced topic for which at least one student enrolled, is also a member of the Admission board.

Applicants' suitability for doctoral studies is verified based on their results in their previous studies, their previous creative and publication activity, but mostly on their admission examination.
Admission examination has two parts:

- Written part (75% importance value), where applicants must solve the given mathematical tasks equivalent to university-level mathematics. The biggest emphasis is on mathematical analysis (differentials and integrals, metric space), not excluding tasks in algebra, geometry, measure theory, and probability theory. Tasks are chosen in such a way so as to prove the applicants' creative ability when solving the tasks. Routine tasks, often found in mathematical exercises at the university level, are avoided.
- Oral part (25% importance value). Oral part requires knowledge equivalent to a final state examination at master's level in mathematics study programme.

Admission (rejection) is determined by the order in which applicants rank according to the achieved number of points received from the admission examination. Every applicant must reach at least 65% success rate in the admission examination. In justified causes, mainly in case of applicants with excellent study results during their studies and in case of applicants with relevant publication activity or multiple achievements in Student Scientific Activities (ŠVOČ), applicants may be admitted by the Dean without undergoing the admission examination, based on the recommendation of the admission board chairman.

Essential requirement of admission to study is command of the English language on a level which will allow students to study mathematics literature in English. This is determined in two ways. Firstly, the assignments in the written part of the examination are in English (applicants may request for translation to Slovak. This, however, is later taken into account when verifying the students' command of English). Secondly, applicants' command of English is verified orally, which is in form of a conversation in English, and in written form by asking applicants to translate a portion of text from a university textbook of mathematical analysis.

c) Admission results from the recent period

In the case of written admission examination, results are announced to the applicants at the faculty website on the day of the examination.
Applicants who meet the set requirements for admission to study receive a decision of admission to study with other relevant documents. The results of admission proceedings are recorded in the academic information system.

2017/18 – admission of Mgr. Miroslava Sartorisová (studies interrupted for 2 years due to maternity leave)
2018/19 – admission of Mgr. Michaela Mihoková and Mgr. Miroslav Výbošťok
2019/20 – no admissions. Based on the agreement on joint leadership of a doctoral candidate between MBU and the Universidad de Oviedo
a Spanish doctoral candidate Pedro Huidobro has been studying at the MBU since autumn 2019.
2020/21 – admission of Mgr. Michaela Bruteničová
2021/22 – no applicants

10. Feedback on the quality of education

a) Procedures for monitoring and evaluating students' opinions of the study programme quality

1. University faculties annually conduct sociological surveys focusing on study programme assessment, asking graduates of the 1st and 2nd degree of studies after state examinations. The questionnaire focuses on the summary of their studies, contents of their study programme and conditions created for the purposes of their completion. The questionnaire is anonymous; students fill in the questionnaire form after they successfully complete their state examination. Questionnaire sheets are later processed in TAP software.
The questionnaire is evaluated at the university level and the results are included in the MBU Report on Pedagogical Activity. At the faculty level, the questionnaire is analysed in detail, focusing on evaluation of answer trends in survey questions in several years for every study programme delivered. At the faculty and department levels, measures after the evaluation improving on the specific aspects in question, are applied. The results of the questionnaire are presented at the Dean's College and are a part of the Reports on Pedagogical Activity.

2. Another questionnaire conducted at the university is focusing on assessment of teachers. The aim of this questionnaire is to receive feedback from students on the quality of classes with a given teacher, their class delivery, their approach to teaching and student assessment. The questionnaire also includes an open-ended question, offering students an opportunity to give their personal opinions on teachers, their work, or articulate their dissatisfaction with them. The questionnaire is anonymous and takes place in AIS. Every teacher has access to results of the questionnaire regarding themselves, Chair of the Department has access to results of all teaching staff in the department. Any potential deficiencies and objections are resolved in cooperation with the Vice-Dean for Pedagogical Activities at the department level.

b) Results of student feedback and related measures to improve the study programme quality

Results of the questionnaire focusing on the students' opinions on their teachers' performance are stored in the academic information system.

c) Results of graduate feedback and related measures to improve the study programme quality

Results of the questionnaire on the study programme quality assessment filled in by graduates are included in the Reports on Pedagogical Activity at the university and the faculty levels.

11. References to other relevant internal regulations and information concerning studies or students in the study programme (e.g. study handbook, accommodation rules, directive on fees, guidelines for student loans, etc.)

Document type	*Link to the document*
FNS MBU Study Regulations	https://www.fpv.umb.sk/studium/pre-studenta/studijny-poriadok-a-ine-dokumenty/studijny-poriadok.html
Study Guide	https://www.fpv.umb.sk/studium/pre-studenta/studijny-poriadok-a-ine-dokumenty/sprievodca-studiom.html
Study Guide for Students with Special Needs	https://www.fpv.umb.sk/studium/pre-studenta/studijny-poriadok-a-ine-dokumenty/sprievodca-studiom-pre-studentov-so-specifickymi-potrebami.html
Directive No. 9/2021 on final, rigorous, and habilitation theses at MBU in Banská Bystrica	https://www.fpv.umb.sk/studium/pre-studenta/zaverecne-prace-a-statne-skusky.html
Disciplinary Code for students of Matej Bel University in Banská Bystrica	https://www.fpv.umb.sk/studium/pre-studenta/studijny-poriadok-a-ine-dokumenty/disciplinarny-poriadok.html

Directive on tuition and fees related to studies and awarding of scholarly-pedagogical titles at Matej Bel University in Banská Bystrica for the current academic year	https://www.fpv.umb.sk/studium/skolne-a-poplatky-spojene-so-studiom/
FNS MBU Scholarship Regulations	https://www.fpv.umb.sk/studium/stipendia/stipendijny-poriadok.html