**Description of the study programme**

**Name of the higher education institution:** *Technical University of Košice*

**Address of the higher education institution:** *Letná 1/9, 042 00 Košice-Sever*

**Identification number of the higher education institution:** *709000000*

**Name of the faculty:** *Faculty of Materials, Metallurgy and Recycling*

**Address of the faculty:** *Letná 1/9, 042 00 Košice-Sever*

Institution body for approving the study programme: *Accreditation Commission of TUKE*

Date of the study programme approval or the study programme modification: *irrelevant*

Date of the latest change in the study programme description: *irrelevant*

Reference to the results of the latest periodic review of the study programme by the institution: *irrelevant*

Reference to the assessment report of the application for accreditation of the study programme under § 30 of Act no. 269/2018 Coll. : *irrelevant*

1. **Basic information about the study programme**
2. Name of the study program and its number according to the register of study programmes.

*náuka o materiáloch, number 104951*

1. Degree of higher education and ISCED-F education degree code.

*3. degree, ISCED code 864*

1. Place(s) of delivery of the study programme.

*at the faculty*

1. Name 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.

*Mechanical Engineering*

1. 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 profession, joint study programme, interdisciplinary studies.

*academically oriented*

1. Awarded academic degree.

*PhD.*

1. Form of study.

*full time*

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

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1. Language or languages in which the study programme is delivered.

 *english language
 slovak language*

1. Standard length of the study expressed in academic years.

*4*

1. Capacity of the study programme (planned number of students), the actual number of applicants and students.

[***https://tuke.sk/wps/portal/tuke/university/vyrocne-spravy-a-dokumenty***](https://tuke.sk/wps/portal/tuke/university/vyrocne-spravy-a-dokumenty)

1. **Graduate profile and learning objectives**
2. Characteristics of the study program.

*The graduate understands the relationship between the physico-chemical nature of the structure and the properties of various materials. Based on the former facts he is able to predict the service life of materials and to develop innovative technological processes related to their production. He manages independently the tasks of research and development of materials, leads and coordinates the respective research teams, and participates within the related educational process with the required professional overview.*

1. Learning objectives.

*The graduate has deep knowledge in the field of materials, their chemical concept, structural construction and the physical nature of the mechanical and utility properties of materials. He can creatively use his knowledge to solve application, technological and conceptual projects for the production of materials that go beyond the scope of the engineering approach and to carry out research and development of materials and to create, develop and deepen new knowledge in the field of mechanical engineering. In the field of material sciences, he can choose specific and appropriate scientific methods of basic and applied research into the structure and properties of materials, processing of materials, degradation and limit states of materials and prediction of their behavior in various conditions. He has the ability to creatively apply his own findings obtained from following the latest trends in science and research and his complex research while independently solving scientific tasks and the most demanding tasks of technical practice in the field of mechanical engineering. Based on his outputs and findings, he can design, verify and implement new research and work procedures.
A graduate of the study program can formulate new hypotheses and strategies for further research in the field of various types of materials and the development of the field of study. He has analytical skills and masters the selected research methods and uses them in the development and research of new materials and their production and processing technologies. He can carry out analysis and research projects, modeling, measurements, data collection and processing using modern information resources and analytical techniques.
The graduate has independent, critical and analytical thinking, which he is able to apply in the dynamically changing conditions of engineering and metallurgical production and materials research. He is able to independently present the results of research and development in the field of material sciences before the national and international professional community and in valuable scientific periodicals in a foreign language. When formulating research and development objectives and interpreting their results, it takes social, scientific and ethical aspects into account. He can determine the focus of research and development of materials, innovate them, coordinate and manage the work and scientific research team in the relevant production and scientific field. A graduate of the doctoral study program has basic theoretical and practical pedagogical experience for professional pedagogical activities and can use them in professional education at secondary vocational schools and technical universities in the field of mechanical engineering and material engineering.*

1. Learning outcomes.

*The graduate understands the relationship between the physico-chemical nature of the structure and the properties of various materials, on the basis of which he is able to manage their changes. It is able to predict the service life of materials based on knowledge of the processes of physico-chemical and mechanical degradation of materials. In the development and research of materials, he applies modern structural and phase analyzes of materials, analyzes of their properties and degradation. Actively acquires, critically evaluates and analyzes new knowledge and information, applies them in the solution of materials production projects, their research and development. As part of research and development, he independently formulates new hypotheses and strategies, implements his own scientific and professional activity, assesses and modifies it, interprets its results with regard to the long-term impact in the given field, social, scientific and ethical aspects. Can design, implement and improve research, development and innovation procedures in the field of materials and their processing. He will demonstrate the contribution of his own original research to the expansion of scientific knowledge in the field through the formulation and publication of the results of research and development at the international level in a foreign language. He independently manages the tasks of research and development of materials, leads and coordinates their research teams. He is able to convey the acquired knowledge in an appropriate way also within the educational process in professional subjects from the field of materials.*

1. Professions.

 *Riadiaci pracovník (manažér) výskumu a vývoja v strojárstve
 Špecialista materiálového výskumu a vývoja v strojárskej výrobe
 Špecialista materiálového výskumu a vývoja v hutníckej výrobe
 Strojársky špecialista vo výskume a vývoji 7
 Odborný asistent vysokej školy 8
 Učiteľ strednej odbornej školy 7*

1. **Employability**
2. Evaluation of the study programme graduates employability.

***Year: 2018
Source:*** [***https://uplatnenie.sk/?degree=V%C5%A0&vs=709000000&faculty=709020000&field=3948V23&year=2018***](https://uplatnenie.sk/?degree=V%C5%A0&vs=709000000&faculty=709020000&field=3948V23&year=2018)***Number of graduates: 6
Average salary: 1261 euros
Half of the graduates earned more than: 1381 euros
TOP 3 industries in which graduates worked:
- Industrial production (40%)
- Professional, scientific and technical activities (40%)
- Administrative and support services (20%)
TOP 3 jobs in which graduates worked:
- Engineering specialists (20%)
- Specialists in the mining, metallurgical, foundry industry and related fields (20%)
- Physicists and astronomers (20%)
Employment: 83%
Contract workers: 0%
SZČO: 0%
On maternity leave: 0%
Unemployed: 17%
Continuing studies: 0%
Others (working abroad, voluntarily unemployed): 0%

Year: 2019
Source:*** [***https://uplatnenie.sk/?degree=V%C5%A0&vs=709000000&faculty=709020000&field=3948V23&year=2019***](https://uplatnenie.sk/?degree=V%C5%A0&vs=709000000&faculty=709020000&field=3948V23&year=2019)***Due to the low number of graduates, no application data is available.***

1. If applicable, indicate the successful graduates of the study programme.

*Graduates of the study program completed their studies at the Faculty of Materials, Metallurgy and Recycling TU in Košice and at external educational institutions FMMR TUKE - Institute of Materials Research SAS and Institute of Experimental Physics SAS in Košice:
academic year: 2015/2016: Ing. Monika Radušovská, PhD., M., Ing. Peter. Hviščová, PhD., Ing. Gabriel Dúl, PhD., Ing. Tibor Sopčák, PhD., Ing. Dušan Balga, PhD., Mgr. P.eter Repovský, PhD., Ing. Mária Huráková, PhD.
academic year: 2016/2017: Ing. Jana Cervová, PhD., Ing. Juraj Szabó, PhD., MSc. Tamás Csanádi, PhD., Ing. Dušan Németh, PhD., Ing. Zuzana Molčanová, PhD., Ing. Ljudmila Vojtková, PhD.
academic year: 2017/2018: Ing. Martin Fides, PhD., Ing. Richard Sedlák, PhD., Ing. Pavel Kurek, PhD., Ing. František Andrejka, PhD., Mgr. Renáta Verbová, PhD.
academic year: 2018/2019: Ing. Róbert Džunda, PhD., Ing. Petra Hajdová, PhD., Ing. Miroslav Glogovský, PhD.
academic year: 2019/2020: Mgr. Katarína Šuľová, PhD., Mgr. Ivan Shepa, PhD.
academic year: 2020/2021: Ing. Anna Špegárová, PhD., MSc. Ivana Kirkovska, PhD.
academic year 2021/2022:*

1. Evaluation of the study programme quality by employers (feedback).

*On the basis of the submitted materials for the study program, three authorities from practice, who are members of the Joint Board of Study Programs Materials, expressed a favorable opinion on the presented characteristics of the study program:
STATEMENT ON THE STRUCTURE AND CONTENT OF THE STUDY PLAN: The composition and content of the subjects and the way they are provided and evaluated correspond to the set outcomes and goals of education, and the compiled recommended study plans allow students to choose appropriate paths (trajectories) in their studies.
STATEMENT ON THE PROFILE OF THE GRADUATE OF THE STUDY PROGRAM (ON THE OBJECTIVES AND OUTCOMES OF THE EDUCATION): The stated profile of the graduate with the subsequent objectives and outcomes of the education corresponds to the listed qualifications and occupations.
STATEMENT ON THE APPLICATION OF GRADUATES IN THE OCCUPATIONS AND ON THE QUALIFICATIONS OBTAINED BY THE GRADUATES: Graduates of the study program are successfully employed in the listed occupations, where they use the acquired qualifications and there is/will be prospective interest in the graduates of this study program on the labor market.
STATEMENT ON THE STAFFING OF THE STUDY PROGRAM: Persons responsible for the study program, teachers and other staffing of the study program make it possible to achieve the set goals and outcomes of education.
STATEMENT ON SPATIAL, MATERIAL AND TECHNICAL SECURITY OF THE STUDY PROGRAM AND SUPPORT: Assigned resources in terms of spatial, material and technical provision of the study program guarantee the achievement of the set goals and educational outcomes.
STATEMENT ON ENSURING THE SYSTEM OF MONITORING AND EVALUATION OF THE STUDY PROGRAM: The system of monitoring and evaluation of the study program includes the processes of obtaining feedback and provides sufficient information on the progress and outcomes of the education so that adequate measures can be taken to maintain and improve the quality of the study program.
OVERALL COMMENT: The study program fulfills sector-specific expectations, requirements of practice and the labor market.

For the evaluation of the study programs Materials, Materials Engineering and Materials Science, a questionnaire was prepared and sent to selected employers and industrial partners. Representatives of five employers participated in the questionnaire survey (two representatives of SAS institutes and three representatives of industrial partners). The evaluation of the individual parameters of the study programs was mostly positive. Questions related to the focus, content and content of the study programs and their importance for practice were answered positively, respectively. rather positive. They also answered questions related to the employment of graduates and their perspective in industrial practice. Those partners who employ graduates of evaluated study programs evaluated their readiness, practical skills and creativity for performance in their company mostly positively, or rather positive.
A specific evaluation of the statements and proposals of authorities from practice and employers from the survey questionnaires are given in the appendices of the minutes of the meeting of the Joint Board of Study Programs Materials No. 1/22.*

1. **Structure and content of the study programme**
2. *The institution describes the rules for the design of study plans within the study programme.*
3. *The institution compiles the recommended study plans for individual study paths.*
4. *The study plan generally states:*
* *individual parts of the study programme (modules, courses, and other relevant school and extracurricular activities, if they contribute to the achievement of the required learning outcomes and allow to obtain credits) in the structure of compulsory, compulsory optional and optional courses,*
* *profile courses of the relevant study path (specialization) within the study programme,*
* *for each learning part/course the learning outcomes, related criteria and rules of their assessment so that the learning objectives of the study programme are met (they can be stated only in the Course information sheets, in the Learning outcomes section and in the Course completion requirements),*
* *prerequisites, co-requisites and recommendations for the design of the study plan,*
* *for each learning part of the study plan/course the applied educational activities (lecture, seminar, exercise, final work, project work, laboratory work, internship, excursion, field practice, professional practice, state exam, etc. or their combinations) suitable for achieving learning outcomes,*
* *methods by which the educational activity is delivered – present, distant, combined (in accordance with the Course information sheets),*
* *outline/syllabus of the course,*
* *student workload ("extent" of individual courses and educational activities separately),*
* *credits allocated to each part based on the learning outcomes achieved and the workload involved,*
* *the person responsible for the course (or a partner organization/person) with an indication of the contact details,*
* *course teachers (or participating partner organizations/persons) (may also be mentioned in Course information sheets),*
* *places where the courses are taught (if the study programme is delivered at several workplaces).*
1. *The institution states the number of credits, the achievement of which is a condition for proper completion of studies and other requirements that the student must meet within the study programme and for its proper completion, including the requirements for state examinations, rules for re-study and rules for the extension, interruption of study.*
2. *For individual study plans, the institution states the requirements for completing the individual parts of the study programme and the student's progress within the study programme in the given structure:*
* *number of credits for compulsory courses required for proper completion of studies/completion of a part of studies,*
* *number of credits for compulsory optional courses required for the proper completion of studies/completion of a part of studies,*
* *number of credits for optional courses required for the proper completion of studies/completion of a part of studies,*
* *number of credits required for the completion of studies/completion of a part of the studies for the common foundations and for the relevant specialization, in the case of a teaching combination study programme or a translation combination study programme,*
* *number of credits for the final thesis and the defense of the final thesis required for the proper completion of studies,*
* *number of credits for professional practice required for the proper completion of studies/completion of a part of studies,*
* *number of credits required for the proper completion of studies/completion of a part of the studies for project work with the indication of relevant courses in engineering study programmes,*
* *number of credits required for the proper completion of studies/completion of a part of the studies for artistic performances in addition to the final thesis in art study programmes.*
1. *The institution describes the rules for verification of learning outcomes, students assessment and the possibilities of appealing against the assessment.*
2. *Conditions for recognition of studies or a part of studies.*
3. *The institution states the topics of final theses of the study programme (or a link to the list).*
4. *The institution describes or refers to:*
* *rules for the assignment, processing, opposition, defense and evaluation of final theses in the study programme,*
* *opportunities and procedures for participation in student mobility,*
* *rules for adherence to academic ethics and rules for drawing consequences,*
* *procedures applicable to students with special needs,*
* *procedures for filing complaints and appeals by students.*

*The Internal Quality Assurance System of Higher Education at the Technical University of Košice:*[***https://tuke.sk/wps/portal/tuke/university/vnutorny-system-kvality/studijne-programy***](https://tuke.sk/wps/portal/tuke/university/vnutorny-system-kvality/studijne-programy)

*Basic Internal Regulations:*

[***https://tuke.sk/wps/portal/tuke/university/legislativa-univerzity/interne-predpisy-a-smernice***](https://tuke.sk/wps/portal/tuke/university/legislativa-univerzity/interne-predpisy-a-smernice)

*Study plans are available in MAIS:*

[***https://maisportal.tuke.sk/portal/studijneProgramy.mais?spsId=49784274&arksId=47507289&fakultaId=6875&lang=sk***](https://maisportal.tuke.sk/portal/studijneProgramy.mais?spsId=49784274&arksId=47507289&fakultaId=6875&lang=sk)

1. **Course information sheets of the study programme**

*Course information sheets are available in MAIS at* [***https://maisportal.tuke.sk/portal/studijneProgramy.mais?spsId=49784274&arksId=47507289&fakultaId=6875&lang=sk***](https://maisportal.tuke.sk/portal/studijneProgramy.mais?spsId=49784274&arksId=47507289&fakultaId=6875&lang=sk)

1. **Current academic year plan and current schedule** (or hyperlink).

[***https://fmmr.tuke.sk/wps/portal/fmmr/studium/studijne-odbory-a-programy***](https://fmmr.tuke.sk/wps/portal/fmmr/studium/studijne-odbory-a-programy)

1. **Persons responsible for the study programme**
2. A person responsible for the delivery, development, and quality of the study programme (indicating the position and contact details).

*prof. Ing. Jozef Janovec, DrSc., jozef.janovec@tuke.sk, +421 55 6022544*

1. List of persons responsible for the profile courses of the study programme with the assignment to the course and provided with a link to the central Register of university staff and with contact details (they may also be listed in the study plan).

 *prof. Ing. Jozef Janovec, DrSc., jozef.janovec@tuke.sk, +421 55 6022544
 doc. Ing. Martin Fujda, PhD., martin.fujda@tuke.sk, +421 55 6022770
 doc. Ing. Mária Mihaliková, PhD., maria.mihalikova@tuke.sk, +421 55 6022538
 prof. Ing. Jarmila Trpčevská, CSc., jarmila.trpcevska@tuke.sk, +421 55 6022409
 doc. Ing. Oksana Velgosová, PhD., oksana.velgosova@tuke.sk, +421 55 6022533*

1. Reference to the research/art/teacher profiles of persons responsible for the profile courses of the study programme.

***prof. Ing. Jozef Janovec, DrSc.,*** [***https://res.tuke.sk/api/vupch/2339/export***](https://res.tuke.sk/api/vupch/2339/export)***doc. Ing. Martin Fujda, PhD.,*** [***https://res.tuke.sk/api/vupch/1723/export***](https://res.tuke.sk/api/vupch/1723/export)***doc. Ing. Mária Mihaliková, PhD.,*** [***https://res.tuke.sk/api/vupch/1478/export***](https://res.tuke.sk/api/vupch/1478/export)***prof. Ing. Jarmila Trpčevská, CSc.,*** [***https://res.tuke.sk/api/vupch/3793/export***](https://res.tuke.sk/api/vupch/3793/export)***doc. Ing. Oksana Velgosová, PhD.,*** [***https://res.tuke.sk/api/vupch/3909/export***](https://res.tuke.sk/api/vupch/3909/export)

1. List of teachers of the study programme with the assignment to the course and provided with a link to the central Register of university staff and with contact details (may be a part of the study plan).

*Study plans Study plans are available in MAIS* *system* [***https://maisportal.tuke.sk/portal/studijneProgramy.mais?spsId=49784274&arksId=47507289&fakultaId=6875&lang=sk***](https://maisportal.tuke.sk/portal/studijneProgramy.mais?spsId=49784274&arksId=47507289&fakultaId=6875&lang=sk)

1. List of the supervisors of final theses with the assignment to topics (indicating the contact details).

*List of final theses are available in MAIS system.*

1. Reference to the research/art/teacher profiles of the supervisors of final theses.

*Available at*[***https://at.tuke.sk***](https://at.tuke.sk)

1. Student representatives representing the interests of students of the study programme (name and contact details).

 *Jakub Kubaško, jakub.kubasko@tuke.sk, 421918798827*

1. Study advisor of the study programme (indicating contact details and information on the access to counseling and on the schedule of consultations).

*Ing. Miriam Vincejová, miriam.vincejova@tuke.sk, +421 55 6022429*

1. Other supporting staff of the study programme – assigned study officer, career counselor, administration, accommodation department, etc. (with contact details).

[***https://fmmr.tuke.sk/wps/portal/fmmr/fakulta/kontakt/studijne-oddelenie***](https://fmmr.tuke.sk/wps/portal/fmmr/fakulta/kontakt/studijne-oddelenie)

1. **Spatial, material, and technical provision of the study programme and support**
2. List and characteristics of the study programme classrooms and their technical equipment with the assignment to learning outcomes and courses (laboratories, design and art studios, studios, workshops, interpreting booths, clinics, priest seminaries, science and technology parks, technology incubators, school enterprises, practice centers, training schools, classroom-training facilities, sports halls, swimming pools, sports grounds).

***Classrooms and laboratories of the Technical University in Košice (FMMR, Institute of Materials and Quality Engineering - UMIK) and collaborating SAS institutes in Košice are available to ensure educational outcomes in accordance with the study plan of the study program. They have both classic and special technology, devices and instruments, intended for teaching and research and for solving dissertation topics in the field of material sciences. Lectures, consultations and seminars and experimental work laboratories are held in classrooms for a larger and smaller number of students in the premises of UMIK - PK11, the Institute of Materials Research of the SAS v.v.i. (ÚMV SAS) and Institute of Experimental Physics SAS, v.v.i. (UEF SAV) and Institute of Materials and Machine Mechanics SAV. v.v.i. (UMMS SAS). For practical teaching and realization of experimental programs of subjects and dissertations, specialized laboratories of these institutes are used, the list and equipment of which is given on the UMIK website:***[***https://umik.fmmr.tuke.sk/laboratoria-a-ucebne/***](https://umik.fmmr.tuke.sk/laboratoria-a-ucebne/)***on the website of the ÚMV SAS:***[***https://websrv.saske.sk/imr/vedecke-divizie/divizia-kovovych-systemov/vyskumne-oblasti/***](https://websrv.saske.sk/imr/vedecke-divizie/divizia-kovovych-systemov/vyskumne-oblasti/)***on the ÚEF SAS website:***[***https://websrv.saske.sk/uef/oddelenia-a-laboratoria/laboratorium-materialovéj-fyzyky/zamerenie/***](https://websrv.saske.sk/uef/oddelenia-a-laboratoria/laboratorium-materialov%C3%A9j-fyzyky/zamerenie/)***on the ÚMMS SAS website:***[***http://www.umms.sav.sk/***](http://www.umms.sav.sk/)***Specialized laboratories of other FMMR institutes are also available for the realization of experimental works of dissertations, the list and equipment of which is given on the website:***[***https://urt.fmmr.tuke.sk/index.php?hm=ustav&sm=laboratoria&lang=svk***](https://urt.fmmr.tuke.sk/index.php?hm=ustav&sm=laboratoria&lang=svk)[***https://umet.fmmr.tuke.sk/Home/LabsHaZ***](https://umet.fmmr.tuke.sk/Home/LabsHaZ)[***https://umet.fmmr.tuke.sk/Home/LabsTTaP***](https://umet.fmmr.tuke.sk/Home/LabsTTaP)***h***

1. Characteristics of the study programme information management (access to study literature according to Course information sheets, access to information databases and other information sources, information technologies, etc.).

*Access to study literature is provided by the University Library of the Technical University and the Central Library of the Slovak Academy of Sciences. They are a central library-information and educational workplace, whose main mission is the information security of scientific research and the pedagogical process for doctoral studies at FMMR TU in Košice. Libraries acquire, preserve and make available literature and information resources in both traditional and electronic form. The library has built-in information systems of a digital library of employee publications, or students' electronic theses (UK TUKE). The goal is to present the academic production and scientific research potential of the TU and SAS institutes on the Internet. Information about the library, information resources and services can be found on the UK website www.lib.tuke.sk and uk.sav.sk. UK TUKE has barrier-free access in all public reading areas. UK TUKE study rooms are open 55 hours a week, the literature rental room is open 25 hours a week. Students have at their disposal a computer study room with computers connected to the Internet, PCs set aside as electronic catalogs within the TU intranet and a training room with computers connected to the Internet.
As part of the teaching, the teachers providing and teaching the given subjects provide basic study literature according to informational subjects in electronic form, or in printed form. Within the premises of the TU in Košice and via remote access (VPN) and in the premises of SAV institutes, students also have access to the information and publication databases of UK TUKE and SAV and special databases Scopus and Web of Science, or ScienceDirect,*

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

*For the time being, the attendance method does not include subjects that would be taught in whole or in part by distance learning within the attendance method, but this is not excluded in the future. Distance education is implemented only in the case of a full-scale transition (by order of the rector) in the cases described in the column &quot;change of education&quot; and is implemented using E-learning (moodle, assignment processing, online consultations via webex meetings, microsoft teams)*

***For the possibility of e-learning education of study program subjects, the necessary study materials, study literature, or sample tests for verifying and testing students; knowledge on the portal*** [***https://moodle.tuke.sk/moodle/***](https://moodle.tuke.sk/moodle/) ***and through the accesses of the TUKE University Library and the SAS Central Library. The "moodle" portal enables distance learning of students in the case of subjects that allow this type of education within the course curriculum. The necessary experimental tasks of subjects and the solution of the experimental program of dissertations are carried out by face-to-face teaching, or experimental work in specialized laboratories of FMMR TUKE, ÚMV SAS and ÚEF SAS and ÚMMS SAS.***

*Transition from the face-to-face study method to the distance method, across the board, i.e. also for the attendance method of education, is implemented based on the rector´s order in the event of a declaration of an emergency situation in the state.*

1. Institution partners in providing educational activities for the study programme and the characteristics of their participation.

*FMMR TUKE's partners in providing educational activities in the study program are industrial enterprises, educational and research institutions in Slovakia.
Industrial enterprises, which are primarily devoted to metallurgical and engineering production, enable the implementation of operational and laboratory experiments for doctoral students on their facilities. They also provide specialized professional lectures for doctoral students of the study program. They also take part in assigning and solving the topics of dissertations of doctoral students and personally participate in commissions for state final examinations in doctoral studies, or in committees for the evaluation of scientific and professional works of doctoral students at conferences and seminars. These are mainly industrial companies such as USS Košice, s.r.o., ŽP, a.s., ŽP VVC, s.r.o., Slovalco, a.s., Žiar nad Hronom, Nemak Slovakia, s.r.o., Žiar nad Hronom, SPP Distribúcia, s.r.o., Bratislava, Magna PT s.r.o., Košice, SPINEA, s.r.o., Prešov and others.
ÚMV SAS and ÚEF SAS in Košice and ÚMMS SAS in Bratislava also participate very closely in the education in the study program of the doctoral study Materials Science. These institutes are external educational institutions for doctoral studies with a contractual relationship with FMMR TUKE. They participate in financing the studies of doctoral students and the solution of their dissertations using the technological and equipment of these institutes. The employees of the institutes list the topics of dissertations and participate in the training of doctoral students and their education. They are members of the committees for dissertation examinations of doctoral*

1. Characteristics of the possibilities for social, sports, cultural, spiritual and social activities.

[***https://studium.tuke.sk/wps/portal/studium/univerzita/info-boxy-texty/studentsky-zivot***](https://studium.tuke.sk/wps/portal/studium/univerzita/info-boxy-texty/studentsky-zivot)

[***https://ktv.tuke.sk/wps/portal***](https://ktv.tuke.sk/wps/portal)

1. Possibilities and conditions for participation of the study programme students in mobilities and internships (indicating contact details), application instructions, rules for recognition of this education.

[***https://www.tuke.sk/wps/portal/tuke/university/usek-pre-zahranicne-vztahy/referat-mobilitnych-programov***](https://www.tuke.sk/wps/portal/tuke/university/usek-pre-zahranicne-vztahy/referat-mobilitnych-programov)

[***https://erasmus.tuke.sk***](https://erasmus.tuke.sk)

1. **Required abilities and admission requirements for the study programme applicants**
2. Required abilities and necessary admission requirements.

[***https://fmmr.tuke.sk/wps/portal/fmmr/studium/doktorandske-studium***](https://fmmr.tuke.sk/wps/portal/fmmr/studium/doktorandske-studium)

1. Admission procedures.

[***https://fmmr.tuke.sk/wps/portal/fmmr/studium/doktorandske-studium***](https://fmmr.tuke.sk/wps/portal/fmmr/studium/doktorandske-studium)

1. Results of the admission process over the last period.

[***https://fmmr.tuke.sk/wps/portal/fmmr/studium/doktorandske-studium/vysledky\_prijimacich\_konani\_phd***](https://fmmr.tuke.sk/wps/portal/fmmr/studium/doktorandske-studium/vysledky_prijimacich_konani_phd)

1. **Feedback on the quality of provided education**
2. Procedures for monitoring and evaluating students' opinions on the study programme quality.

*Organizational guideline Education H1*

[***https://legislativa.tuke.sk/legislativa/sekcia-pre-zamestnancov/organizacne-smernice/hlavne-procesy/h1-vzdelavanie/os\_tuke\_h1\_01\_vzdelavanie\_vyd03.pdf/view***](https://legislativa.tuke.sk/legislativa/sekcia-pre-zamestnancov/organizacne-smernice/hlavne-procesy/h1-vzdelavanie/os_tuke_h1_01_vzdelavanie_vyd03.pdf/view)

1. Results of student feedback and related measures to improve the study programme quality.

[***https://www.tuke.sk/wps/portal/tuke/studies/studentske-ankety***](https://www.tuke.sk/wps/portal/tuke/studies/studentske-ankety)

1. Results of graduate feedback and related measures to improve the study programme quality.

*We are currently developing a system for collecting and evaluating alumni feedback.*

1. **References to other relevant internal regulations and information concerning the study or the study programme student** (e.g. study guide, accommodation regulations, fee directive, guidelines for student loans, etc.).

*The Internal Quality Assurance System of Higher Education at the TUKE:*[***https://tuke.sk/wps/portal/tuke/university/vnutorny-system-kvality/studijne-programy***](https://tuke.sk/wps/portal/tuke/university/vnutorny-system-kvality/studijne-programy)

*Study Related Legislation:*

[***https://www.tuke.sk/wps/portal/tuke/studies/legislativa-studia***](https://www.tuke.sk/wps/portal/tuke/studies/legislativa-studia)

*Basic Internal Regulations:*

[***https://tuke.sk/wps/portal/tuke/university/legislativa-univerzity/interne-predpisy-a-smernice***](https://tuke.sk/wps/portal/tuke/university/legislativa-univerzity/interne-predpisy-a-smernice)