



UNIVERSITY OF MINING AND GEOLOGY "ST. IVAN RILSKI"

SOFIA | BULGARIA











WELCOME TO THE UNIVERSITY OF MINING AND GEOLOGY "ST. IVAN RILSKI", SOFIA

We combine tradition and innovation

During its 70-year-long period of existence, based on traditions and systematic modernisation, the University of Mining and Geology "St. Ivan Rilski" has steadily maintained high academic standards. In response to the internationalisation and integration in the European educational and research space, it has never ceased to declare its ambition to preserve and kindle the fire of knowledge in the field of mining and geological sciences.

Nowadays, the University of Mining and Geology "St. Ivan Rilski" (UMG) is among the four mining higher schools on the European map as a co-founder of the Alliance of Mining Universities. The University of Mining and Geology stands out as a well-established and renowned centre for scientific and applied research in the mining industry within the European education system and the world science and practice.

The University of Mining and Geology "St. Ivan Rilski" trains students in geological, mining, electrical and mechanical courses of studies, conducts fundamental and applied scientific research and implements all forms of postgraduate qualification. During its long history the UMG "St. Ivan Rilski" has trained more than 37 000 Bulgarian and foreign citizens from over 40 countries from Europe, Asia, Africa, South and Central America. The university disposes of highly qualified academic staff and researchers and good material basis.

The mission of the UMG "St. Ivan Rilski" is:

- to retain its role as a key player in the creation and development of the intellectual potential of the Republic of Bulgaria with the aim to ensure the raw materials and energy independence of the country;
- to prepare engineering specialists with a wide scope of knowledge for working with complex production systems in exploration, mining, processing, transportation, storage and use of mineral resources;
- ▶ to implement significant fundamental and applied research in the sphere of mining industry and geological prospecting.



Our Campus

The University of Mining and Geology "St. Ivan Rilski" is located in Sofia, on the territory of the Student Town, which is situated at the foot of Vitosha Mountain. The university campus has a total area of 100 decares which includes the buildings of the Rectorate, the Faculties (Faculty of Mining Technology, Faculty of Mining Electromechanics, Faculty of Geology and Exploration), the Laboratory Block, the Sports Complex, the "St. Ivan Rilski" Publishing House, the museums, the scientific and educational laboratories and our chapel. There are sports and fitness halls, playgrounds, a swimming-pool, cafes and student dormitories on the territory of the UMG "St. Ivan Rilski" or in close proximity to it.

The library at the University of Mining and Geology "St. Ivan Rilski" provides the necessary scientific, technical and academic literature to the readers in the main scientific domains of the university: mining and geology.

The multifunctional sports complex offers students the possibilities to practice a variety of sports: from football and basketball, street ball, volleyball and martial arts to integrated yoga, table tennis, beach volleyball and beach tennis. The sports complex has also a recreation centre, a physio-therapy study, a fitness centre equipped for heal-fit gymnastics and some modern and functional service areas and sanitary facilities.

Student dormitories

The University of Mining and Geology "St. Ivan Rilski" disposes of four student dormitories (for single students and families) with very good living conditions and monthly rents being some of the lowest in the Student Town. All dormitories are equipped with the possibility to set up and use computer networks with Internet access to each room.

The Chapel

Early in 2022, the academic management started an initiative for building a small Orthodox chapel on the campus of the University, which was completely funded through donations. On 12th June 2023, on the occasion of the 70th anniversary of the University of Mining and Geology "St. Ivan Rilski", the Orthodox chapel "St. Ivan Rilski" was solemnly consecrated.



Our Faculties

Faculty of Mining Technology

The Faculty of Mining Technology is a successor of the Faculty of Mining at the Institute of Mining and Geology, which was initially established in 1953. One of the most significant achievements of the academic staff at the faculty is the elaboration of a National Strategy for Development of the Minerals and Raw Materials Industry 2011-2030. Continuity, traditions and development of best practices in the educational, scientific and management activity of the Faculty of Mining Technology - this is the foundation for preserving the unique faculty with its 70 years of history.

Faculty of Mining Electromechanics

The Faculty of Mining Electromechanics is the youngest but also the fastest developing faculty at the University of Mining and Geology "St. Ivan Rilski". It was founded in 1986 as a result of the division of the existing Faculty of Mining. Within its 36 years of history, the Faculty of Mining Electromechanics has always met the contemporary requirements for training highly qualified engineers.

Faculty of Geology and Exploration

The Faculty of Geology and Exploration has given the foundation of geophysical prospecting in Bulgaria since the beginning of 1950s. Thousands of specialists have been trained in: exploration and prospecting of mineral deposits, geological engineering, geophysical and drilling prospecting for the construction of buildings, roads, tunnels, oil and gas pipelines, hydro-geophysical prospecting, geophysical prospecting for defining the seismic and tectonic regions in Bulgaria and studies of the Earth.

Kardzhali Branch of the University of Mining and Geology "St. Ivan Rilski"

The Kardzhali Branch is a territorially outsourced structure of the University of Mining and Geology in Southern Bulgaria. It is certified to a 4-year full- or part-time form of studies. The Kardzhali Branch strictly implements the system of maintaining the quality in education and the credit accumulation and transfer system.





Internships and Trainings

Internships and trainings are part of the students' education at the University of Mining and Geology "St. Ivan Rilski". The university's close contacts with the business give students the possibility to choose the most suitable placement according to their course of studies and interest, and to visit mining enterprises and gain practical experience. They aim to equip students with practical experiences and knowledge, preparing them to meaningfully engage with their future employers. The business also offers the opportunity to fund research, which is an important part of the studies of our future specialists.

STUDY COURSES

Bachelor's Programmes

			Form o	f study	Dura-
Course of study	Vocational field	Vocational qualification	Full- time	Part- time	tion of study
1. Automatics, Information, and Controlling Equipment	5.2. Electrical Engineering, Electronics, and Automatics	Engineer in Automatics, Information and Controlling Equipment	✓	✓	Four years
2. Biotechnology	5.11. Biotechnologies	Engineer and Biotechnologist	✓	✓	Four years
3. Gas, Combustion, and Purifying Equipment and Technologies	5.8. Exploration, Mining, and Processing of Minerals	Engineer in Gas, Combustion, and Purifying Equipment and Technologies	✓	✓	Four years
4. Geology and Exploration of Mineral and Energy Resources	5.8. Exploration, Mining, and Processing of Minerals	Exploration geologist	✓	✓	Four years
5. Geology and Geoinformatics	4.4. Earth Sciences	Engineer in Geoinformatics	✓	✓	Four years
6. Electrical Power Engineering and Electrical Equipment	5.2. Electrical Engineering, Electronics, and Automatics	Electrical Engineer	✓	✓	Four years
7. Ecology and Environmental Protection*	4.4. Earth Sciences	Environmental engineer	✓	✓	Four years
8. Complex Mechanisation and Computer Design in Mechanical Engineering	5.1. Machine Engineering	Machine Engineer	√	✓	Four years

			Form o	f study	Dura-
Course of study	Course of study Vocational field Vocational qualification		Full- time	Part- time	tion of study
9. Computer Technologies in Engineering*	5.13. General Engineering	Engineer in Computer Technologies	✓		Four years
10. Underground Construction	5.7. Architecture, Construction, and Geodesy	Engineer in Underground Construction	✓	✓	Four years
11. Mine Surveying and Geodesy	5.7. Architecture, Construction, and Geodesy	Regulated profession "Engineer in Geodesy, Cartography, and Cadastre"	✓		Five years
12. Mechanisation of Mining Production	5.1. Machine Engineering	Machine Engineer	✓	\checkmark	Four years
13. Applied Geophysics	4.4. Earth Sciences	Engineer and geophysicist	\checkmark	✓	Four years
14. Development of Mineral Resources*	5.8. Exploration, Mining, and Processing of Minerals	Mining Engineer	✓	✓	Four years
15. Drilling, Extraction, and Transport of Oil and Gas	5.8. Exploration, Mining, and Processing of Minerals	Engineer in Drilling, Extraction, and Transport of Oil and Gas	✓	✓	Four years
16. Management of Resources and Production Systems*	5.13. General Engineering	Engineer and Manager	✓		Four years
17. Hydrogeology and Engineering Geology	5.7. Architecture, Construction, and Geodesy	Engineer in Hydrogeology and Engineering Geology	✓		Four years
18. Mineral Processing and Recycling*	5.8. Exploration, Mining, and Processing of Minerals	Engineer in Mineral Processing and Recycling	✓	✓	Four years
19. Blasting Equipment and Technology	5.8. Exploration, Mining, and Processing of Minerals	Engineer in Blasting Equipment and Technology	✓	✓	Four years

^{*}These Bachelor's programmes are also available at the Kardzali Branch of the UMG "St.Ivan Rilski"

Master's Programmes

				rm tudy		Ouration of study	
Course of study	Vocational field	Vocational qualification	Full- time	Part- time	1 year (2 se- mes- ters)	1.5 years (3 se- mes- ters)	2 years (4 se- mes- ters)
1. Automatics, Information and Controlling Equipment	5.2. Electrical Engineering, Electronics, and Automatics	Engineer in Automatics, Information, and Controlling Equipment	✓	✓	✓	✓	
2. Biotechnology	5.11. Biotechnologies	Engineer and Biotechnologist	✓	✓		✓	
3. Gas Supply	5.8. Exploration, Mining, and Processing of Minerals	Engineer – M.Sc.	✓	✓		✓	
4. Geoinformatics	4.4. Earth Sciences	Engineer in Geoinformatics	✓		✓		
5. Geotechnics	5.7. Architecture, Construction and Geodesy	Engineer in Geotechnics	✓	✓	✓		
6. Electric Vehicles	5.2. Electrical Engineering, Electronics, and Automatics	Electrical Engineer	✓	✓	✓	✓	
7. Ecology and Environmental Protection	4.4. Earth Sciences	Engineer and Ecologist	✓	✓		✓	
8. Electrical Power Engineering and Electrical Equipment with Renewable Sources of Energy	5.2. Electrical Engineering, Electronics, and Automatics	Electrical Engineer	✓	✓	✓	✓	

9. Economic Geology	5.8. Exploration, Mining, and Processing of Minerals	Master in Economic Geology	✓	✓		✓	
10. Fossil Fuel Economics with two professional areas: Petroleum Geology and Coal Geology	5.8. Exploration, Mining, and Processing of Minerals	Master in Fossil Fuel Economics	✓	✓		✓	
11. Electrical Power Engineering and Electrical Equipment in Mines	5.2. Electrical Engineering, Electronics, and Automatics	Electrical Engineer	✓	✓	✓	✓	
12. Engineering Geology	5.7. Architecture, Construction, and Geodesy	Master in Engineering Geology	✓			✓	
13. Industrial Management	5.13. General Engineering	Engineer and Manager	✓		✓		
14. Engineering Safety	5.13. General Engineering	Engineer in Occupational Safety and Labour Protection	✓	✓		✓	✓
15. Machines, Apparata, and Facilities for Industrial and Municipal/Domestic Gasification	5.8. Exploration, Mining, and Processing of Minerals	Engineer in Gas Equipment and Technologies	✓	✓	✓	✓	
16. Waste Management and Treatment	4.4. Earth Sciences	Engineer and Ecologist	✓	✓		✓	
17. Computer Technologies in Engineering	5.13. General Engineering	Engineer	✓		✓		
18. Mechanisation of Mining and Transport of Mineral Resources	5.1. Machine Engineering	Machine Engineer	✓	✓	✓	✓	

19. Open Pit Mining of Minerals	5.8. Exploration, Mining, and Processing of Minerals	Mining Engineer in Opencast Development of Minerals	√	√		√	
20. Mechanisation for Processing of Minerals	5.1. Machine Engineering	Machine Engineer	✓	✓	✓	✓	
21. Petroleum Geology	5.8. Exploration, Mining, and Processing of Minerals	Master in Petroleum Geology	✓	✓		✓	
22. Petroleum Geophysics	4.4. Earth Sciences	Engineer and Geophysicist	✓	✓	✓		
23. Ecological Risk Assessment and Sustainable Development	4.4. Earth Sciences	Engineer and Ecologist	✓	✓		✓	
24. Underground Construction	5.7. Architecture, Construction, and Geodesy	Engineer in Underground Construction	✓	✓	✓		
25. Applied Geophysics	4.4. Earth Sciences	Engineer and Geophysicist	✓	✓	✓		
26. Underground Mining of Minerals	5.8. Exploration, Mining, and Processing of Minerals	Mining Engineer in Underground Development of Minerals	✓	✓		✓	
27. Exploration Geophysics	4.4. Earth Sciences	Engineer and Geophysicist	✓	✓	✓		
28. Blasting Equipment and Technology – Production of Blasting Materials	5.7. Architecture, Construction, and Geodesy	Engineer in Blasting Equipment and Technology – Production of Blasting Materials	√	✓	✓		
29. Applied Mineralogy	5.8. Exploration, Mining, and Processing of Minerals	Engineer and Geoexplorer	✓	✓		✓	

30. Blasting Equipment and Technology	5.8. Exploration, Mining, and Processing of Minerals	Mining Engineer in Blasting Equipment and Technology	✓	✓	✓		
31. Management of the Mining and Processing of Minerals	5.8. Exploration, Mining, and Processing of Minerals	Engineer in Management of the Mining and Processing of Minerals	✓	✓	✓	✓	
32. Water Quality Management	4.4. Earth Sciences	Engineer and Ecologist	✓	✓		✓	
33. Gas Infrastructure Management	5.8. Exploration, mining, and processing of minerals	Engineer – M.Sc.	✓	✓		✓	
34. Solid and Liquid Waste Management	5.8. Exploration, Mining, and Processing of Minerals	Engineer in Management of Solid and Liquid Waste	✓	✓	✓	✓	
35. Hydrogeology	5.7. Architecture, Construction, and Geodesy	Master in Hydrogeology	✓			✓	
36. Combined Mining of Minerals	5.8. Exploration, mining, and processing of minerals	Mining Engineer in Combined Mining of Minerals	✓	✓	✓	✓	
37. Electrical Power Engineering	5.2. Electrical Engineering, Electronics, and Automatics	Electrical Engineer	✓	✓	✓	✓	
38. Ecotechnologies and Environmental Protection (in English)	4.4. Earth Sciences	Master Ecologist	✓			✓	
39. Extraction, Transport and Storage of Oil and Gas	5.8. Exploration, mining, and processing of minerals	Engineer in Extraction, Transport and Storage of Oil and Gas	✓	✓		✓	
40. Drilling and Extraction of Oil and Gas	5.8. Exploration, mining, and processing of minerals	Engineer in Drilling and Extraction of Oil and Gas	✓	✓		✓	

Doctoral Programmes

Doctoral programme	Vocational field
1. Hydrogeology	4.4. Earth Sciences
2. Engineering Geology	4.4. Earth Sciences
3. Mineralogy and Crystallography	4.4. Earth Sciences
4. Petrology	4.4. Earth Sciences
5. Paleontology and Stratigraphy	4.4. Earth Sciences
6. Regional Geology	4.4. Earth Sciences
7. Geotectonics	4.4. Earth Sciences
8. Ecology and Protection of Ecosystems	4.4. Earth Sciences
9. Water Treatment Technology	4.4. Earth Sciences
10. Technology for Waste Recovery and Treatment	4.4. Earth Sciences
11. Systems and Devices for Environmental Protection	4.4. Earth Sciences
12. Methods and Technique of Geological Research	4.4. Earth Sciences
13. Automation in Production (By Industrial Branches)	5.2. Electrical Engineering, Electronics, and Automatics
14. Lighting Equipment and Light Sources	5.2. Electrical Engineering, Electronics, and Automatics
15. Electricity Supply and Electrical Equipment (By Industrial Branches)	5.2. Electrical Engineering, Electronics, and Automatics
16. Mine Surveying	5.7. Architecture, Construction, and Geodesy

Doctoral programme	Vocational field
17. Underground Construction	5.7. Architecture, Construction, and Geodesy
18. Blasting Equipment and Technology – Production of Blasting Materials	5.7. Architecture, Construction, and Geodesy
19. General, Higher, and Applied Geodesy	5.7. Architecture, Construction, and Geodesy
20. Geology and Exploration of Minerals	5.8. Exploration, Mining, and Processing of Minerals
21. Underground Mining of Minerals	5.8. Exploration, Mining, and Processing of Minerals
22. Opencast and Underwater Mining of Minerals	5.8. Exploration, Mining, and Processing of Minerals
23. Mechanisation of Mines	5.8. Exploration, Mining, and Processing of Minerals
24. Mineral Processing and Recycling	5.8. Exploration, Mining, and Processing of Minerals
25. Blasting Equipment and Technology	5.8. Exploration, Mining, and Processing of Minerals
26. Drilling Equipment and Technology	5.8. Exploration, Mining, and Processing of Minerals
27. Transport and Storage of Oil, Gas, and Solid Mineral Products	5.8. Exploration, Mining, and Processing of Minerals
28. Development and Exploitation of Oil and Gas Fields and Gas Condensate Deposits	5.8. Exploration, Mining, and Processing of Minerals
29. Mine Aerology	5.8. Exploration, Mining, and Processing of Minerals
30. Occupational Safety Technique and Anti-Fire Equipment	5.8. Exploration, Mining, and Processing of Minerals
31. Computer Technologies in Engineering	5.13. General Engineering
32. Organisation and Management of Mining	5.13. General Engineering





Higher School of Blasting Operations Personnel Training

Education at the Higher School of Blasting Operations Personnel Training is intended for people with higher or secondary education who wish to obtain theoretical and practical knowledge and skills in blasting activities in all branches of industry. The following qualifications can be acquired:

- Design engineer of blasting operations, first and second degree;
- Head of blasting operations;
- Blasting materials production manager;
- Fire worker foreman;
- Head of blasting operations of shift workers;
- Shotfirer;
- Fireworker;
- Tester of blasting materials;
- Discarder;
- Blasting material storage supervisor;
- Explosives laboratory technician;
- Blasting material storeman;
- > Pyrotechnic article storeman.

Annually, about 15 courses are organised in which over 200 various experts are trained. Those who have completed a course at the Higher School of Blasting Operations Personnel Training obtain a Certificate of Legal Ability after successfully passing an exam before a qualification board of examiners.

Career Centre

The Career Centre was set up in 2006 to support the communication between the business, the academic staff, and the students at the University of Mining and Geology "St. Ivan Rilski". It offers career guidance services to the students and helps them with the selection of internships and jobs. The Centre organises Career Days and company presentations where the students are acquainted with new possibilities for career development in the mining industry. As a result of its active work, the Career Centre has concluded partnership agreements with famous international companies and participates in joint initiatives with business and state administration such as conferences, scientific sessions, open lectures, training seminars and courses, competitions.



Laboratories

In its academic and scientific work, the University of Mining and Geology uses the following laboratories:

Central Research Laboratory of Geochemistry Research
Laboratory
of Energy
Georesources

Laboratory of Gas Chromatography Research
Laboratory of
X-Ray Diffraction

Research Laboratory for Scanning Electron Microscopy (SEM) Research and
Development
Laboratory of
Mining Equipment

Central Laboratory for Raw Materials Processing and Waste Management

Research Laboratory of Lighting Equipment

Museums

Students, academics and general public have access to the following museums:

MUSEUM OF UNIQUE CRYSTALS,

which introduces samples of rare crystals and minerals, predominantly from Brazil.

MUSEUM OF MINERALOGY, PETROGRAPHY, AND MINERALS.

which includes a student training collection of minerals, rocks, and mineral resources. The specimens are arranged in three main sections: Mineralogy, Petrography, and Minerals.

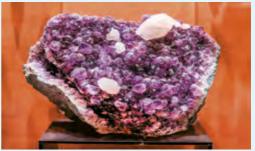
MUSEUM OF GEOLOGY AND PALEONTOLOGY,

which is one of the largest specialised museums in Bulgaria and in terms of the wealth of its collections, it can only be rivalled by the Museum of Palaeontology and Historical Geology at Sofia University and by the National Museum of Natural History.

MUSEUM OF PHYSICS,

created by the lecturers from the Department of Physics. Currently, the collection amounts to over 300 items part of which are unique.









Science

International Scientific Conference

The annual International Scientific Conference of the University of Mining and Geology "St. Ivan Rilski" is a significant international scientific event which is traditionally attended by world-renowned scientists from Austria, Australia, Canada, Germany, the Republic of Northern Macedonia, Romania, Russia, Serbia, Turkey, and many others. The conference offers opportunities for direct contacts, discussions, future co-operation, and exchange of experience in the field of: exploration and mining of mineral resources; mineral processing; waste management; mechanisation, electrification, and automation of mining and processing plants; economics and management; studies in the humanities and social sciences; with a focus on training innovations.



Scientific Journals

Sustainable Extraction and Processing of Raw Materials Journal

Sustainable Extraction and Processing of Raw Materials (SEPRM) is a specialised scientific journal dedicated to presenting original, innovative specific and interdisciplinary research papers and concise reviews on environmentally friendly and viable production, while taking into consideration the sustainable development.

Annual of the University of Mining and Geology "St. Ivan Rilski"

The Annual of the University of Mining and Geology "St. Ivan Rilski" is a scientific journal, which includes a collection of papers by Bulgarian and foreign scientists, university lecturers, doctoral students, undergraduate students, who take part in the International Conference, organised by the University.

Proceedings in the Humanities and Social Sciences of the University of Mining and Geology "St. Ivan Rilski"

The Proceedings in the Humanities and Social Sciences of the University of Mining and Geology "St. Ivan Rilski" is a collection of works by Bulgarian and foreign writers, scholars and scientists, university lecturers, doctoral and undergraduate students. It presents achievements and in-depth, interesting, and meaningful reflections of individual authors or teams of authors, whose quests are focused in the field of the humanities and the social sciences.



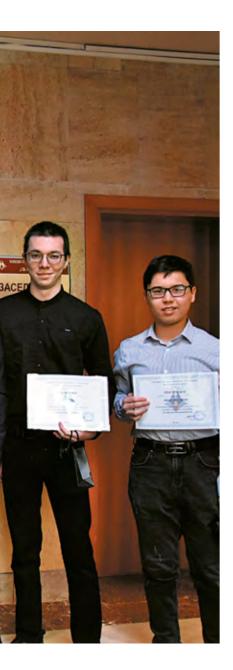




International Cooperation / Partner Universities

International cooperation has been extended and connections are being maintained with foreign institutions, such as: Freiberg Mining Academy (Germany); the University of Leoben (Austria); Saint Petersburg State University (Russia); the Mining University of Petroşani (Romania); the University of Niš (Serbia); Goce Delčev University - Štip (North Macedonia), etc. New co-operation agreements have been concluded with: the University of Štip; the Kazakh National Research Technical University "K. I. Satbayev", Almati, Kazakhstan; the Faculty of Mining, Geology, and Petroleum Engineering at the University of Zagreb, Croatia. The University of Mining and Geology "St. Ivan Rilski" partners also with universities from China, Moldova, Sudan, Uzbekistan, Ukraine, etc., which resulted in student participation in short-term courses, summer schools, and international projects.





ERASMUS+ Programme – Student and Staff Mobility

In 2021 the University of Mining and Geology "St. Ivan Rilski" was awarded an Erasmus Charter by the European Commission for the period of 2021-2027. Currently, the University has the following active academic exchange agreements within the Erasmus+ programme: Montanuniversitaet Leoben, Austria; Silesian University of Technology, Gliwice, Poland; Técnico Lisboa, Lisbon, Portugal: Universidad Politécnica de Madrid. E.T.S.I. Minas y Energia, Spain; TU Bergakademie Freiberg, Germany; Petroleum Gas University of Ploieshti, Romania; Universidad de Castilla – La Mancha, Almaden, Spain; Aksaray University, Türkiye; Konya Technical University, Türkiye; Universidade de Évora, Portugal; Universidad de Oviedo, Spain; University of Petrosani, Romania; Polytechnical University of Catalunya, Barcelona School of Building Construction (EPSEB), Spain; University of Niš, Serbia; University of Science and Technology, Krakow, Poland; Vytautas Magnus University, Kaunas, Lithuania; Aristotle University of Thessa-Ioniki, Greece; Universidad Complutense

de Madrid, Spain, Zhytomyr Polytechnic State University, Ukraine; Kastamonu University, Turkey; Gotse Delchev University, Štip, the Republic of North Macedonia; University of Natural Resources and Life Science, Vienna, Austria; Tecnological University of Dublin, Ireland; University for information science and Technology "St. Paul The Apostle", Ohrid, the Republic of North Macedonia.

Erasmus + coordinator for the University of Mining and Geology "St. Ivan Rilski":

Prof. Dr. Marinela Panayotova, PhD Faculty of Mining Technology, Phone: + 359 2 8060305 e-mail: m_panayotova@mgu.bg.









Contacts

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For inquiries regarding application documents and deadlines, please contact the Education and Information Department: education@mgu.bg

WE'LL BE HAPPY TO SEE YOU AT THE UNIVERSITY OF MINING AND GEOLOGY "ST. IVAN RILSKI"!