



Taras Shevchenko National University of Kyiv
Educational and Scientific Institute
«Institute of Geology»

The new study program
"Economic Geology"
(taught in English)

Employment opportunities:

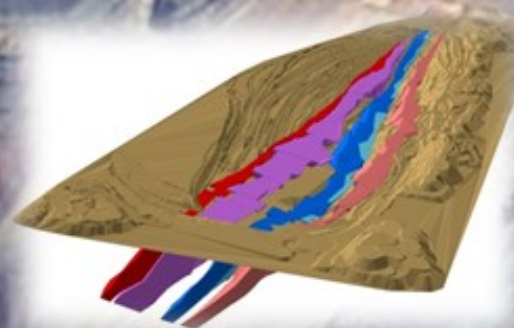
- State and private exploration enterprises;
- Mining companies (geological survey departments);
- Petroleum companies;
- Evaluation of decorative and gemstones;
- GIS and data analytics companies;
- Research geological institutions;

Economic geology – educational and scientific discipline concerned with distribution of mineral deposits, resources and reserves evaluation.

Basic information about the study program "Economic Geology":

1. Speciality – 103 Earth Sciences
2. Study program - Economic geology (taught in English)
3. Educational Degree – Master
4. Volume and duration – 4 semesters (2 years)

14 specialists with a degree in geological sciences are involved in the program.



Skills of economic geologists:

- Geological and economic evaluation of mineral resources and reserves:
 - Selection and justification of cut- off parameters;
- Feasibility study , preliminary feasibility and scoping study;
 - Value assessment of minerals deposits;
- Geological and mining modeling of minerals deposits.



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MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

Taras Shevchenko National University of Kyiv

ACADEMIC AND PROFESSIONAL PROGRAM

Economic Geology

Educational level: second

Educational degree: Master of Sciences

Specialty: Earth Sciences (Code No.103)

Knowledge domain: Natural Sciences (No.10)

1. Profile of the study program
«Economic Geology»

1 – General information	
Educational level, specialty and qualification	obtained qualification: Master Degree Program Subject Area Earth Science Program Economic Geology
Language(s) of tuition and examination	<i>English</i>
Volume and duration	120 credits ECTS, duration 4 semesters
Type of educational program	educational and professional
University and department	Taras Shevchenko National University of Kyiv, Ukraine Educational Scientific Institute “Institute of Geology”
Accreditation	Accreditation certificate of Ministry of Education and Science of Ukraine for specialty "Geology": series HД-IV, №1123809, 5 June 2013.
Academic level	NQF of Ukraine – 8 FQ-EHEA – 2 EQF-LLL – 7
Preconditions	Bachelor diploma, specialty “Earth Science”, “Engineering”, “Geoscience”, “Economics”, “Mining” or other related
Mode of attendance	Full-time
Internet description of the study program	www.geol.univ.kiev.ua/ua/edu/edu_programs/
2 – Goal of the study program	
	<p>Main goal of the study program is to prepare a highly qualified, competitive, integrated in the European and international scientific and educational space specialist in economic geology. Such specialists have skills in modern international standards of assessment, knowledge in a specific field (ore geology, petroleum geology, hydrogeology, etc.), practical skills in geostatistics, geoinformation systems, computer simulation of mineral deposits and reserves and resource estimation).</p> <p>Acquired competences can be useful both for employment in Ukraine and in other countries.</p>

3 - Outline of the study program	
Knowledge domain (field / specialty / specialization)	Natural Sciences / Earth Sciences / Geology / Economic geology
Focus of the educational program	applied professional educational
Principal point of the educational program and specialization	Academic program in Economic Geology (Earth Sciences). Key words: mineral reserves and resources evaluation, geology of mineral deposits.
Features of the program	<p>Main goal of the study program is to prepare a highly qualified, competitive, and integrated in the European and international professional, scientific and educational space specialist in economic geology. Such specialists have skills in modern international standards of resource and reserves assessment, knowledge in a specific field (ore geology, petroleum geology, hydrogeology, etc.), practical skills in geostatistics, geoinformation systems, computer simulation of mineral deposits and reserves and resource estimation).</p> <p>The program focuses on foreign students received educational level degree in Earth sciences (English taught), and local university bachelors who plan to work abroad.</p> <p>The program has its background in the profound system of geological knowledge to be acquired within Bachelor's programs in Earth Science, Engineering or Geosciences as well as Mining and Economics.</p>
4 – Eligibility of absolvents for employment and further studies	
Potential employment	<ul style="list-style-type: none"> • State and private exploration enterprises; • Mining companies (geological survey departments); • Petroleum companies; • Evaluation of decorative and gemstones; • GIS companies; • Research geological institutions.
Further study	Studies according to the Doctor of Philosophy (PhD) grade «Earth Science», «Engineering» and «Geosciences»
5 – Tuition and evaluation	
Tuition and evaluation	General education style: problem-oriented. Lectures, educational seminars, practical training, labs, self-tuition from textbooks and syllabus, advisory hours with instructors. During the last education year, half of the year is dedicated to the preparation of the final paper (Master's

	Thesis), which is to be presented and discussed during meetings of instructors and students.
6 – Program competences	
Integral competence	<p>Skills of economic geologists:</p> <ol style="list-style-type: none"> 1. Geological and economic evaluation of mineral resources and reserves: <ul style="list-style-type: none"> • mineral resource and reserves assessment; • selection and justification cut- off parameters; • scoping study, preliminary feasibility study and feasibility study; • value assessment of minerals deposits; 2. Geological and mining modeling of minerals deposits
9 – Academic mobility National credit mobility –	
Tuition of foreign students	Bachelor level in Earth Science, Geosciences, Petroleum Geology, Engineering, Geophysics. English proficiency level B2 or higher.

Economic Geology

2. List and logical order of components of the vocational and scientific program

2.1. List of compulsory subjects

Code	Components of the educational program (study subjects, term papers (projects), practical training, graduation thesis)	ECTS credits	Form of final evaluation
1	2	3	4
Compulsory components (CC)			
CC 1.	Methodology of research and Intellectual property (Методологія та організація досліджень з основами інтелектуальної власності)	3	Pass-fail exam
CC 2.	Professional and Corporate Culture (Професійна та корпоративна ethics)	3	Pass-fail exam
CC 3.	Geological concepts and methods in the mining cycle (Геологічні явища та методи в гірничому циклі)	10	Exam
CC 4.	Ore Geology (Рудна геологія)	10	Exam
CC 5.	Mining and the Environment (Гірнича справа та навколишнє середовище)	10	Exam
CC 6.	Reserves and resources evaluation (Оцінка ресурсів та запасів корисних копалин)	10	Exam
CC 7.	Modern International standards of exploration (Сучасні міжнародні стандарти оцінки при гірничих роботах)	10	Exam
CC 8.	Master's thesis (Магістерська робота)	20	захист
CC 9.	Pre-graduate practice (Переддипломна практика)	4	Pass-fail exam
CC 10.	Practicum in Reserves and Resources evaluation/in Ore Geology (Практикум з оцінки ресурсів та запасів/з рудної геології)	10	Pass-fail exam
Total scope of compulsory components:		90	
Optional components (OC)			
OC 1	Ore Geology (advanced) (Рудна геологія - додатковий курс)	10	Exam
OC 2	Raw material properties and Technologies (Властивості та технології оцінки мінеральної сировини)	10	Exam
OC 3	Marine mineral resources and their evaluation (Морські мінеральні ресурси та їх оцінка)	10	Exam
OC 4	Modeling of Deposits (Моделювання родовищ корисних копалин)	10	Exam

OC 5	Reserves and resources evaluation (advanced) (Оцінка ресурсів та запасів корисних копалин - додатковий курс)	10	Exam
OC 6	Mining and the Environment (advanced) (Гірнича справа та навколишнє середовище - додатковий курс)	10	Exam
OC 7	Quantitative Mineral Resources Assessment (QMRA) (Кількісна оцінка мінеральних ресурсів)	10	Exam
OC 8	Mining technologies for mineral deposits (Технології видобутку для родовищ корисних копалин)	5	Pass-fail exam
OC 9	Legislation in subsoil using (Нормативне право в надрокористуванні)	5	Pass-fail exam
OC 10	Advanced mineralogy (Мінералогія додатковий курс)	5	Pass-fail exam
OC 11	Basics of gemology (Основи гемології)	5	Pass-fail exam
OC 12	Research of modern market (Дослідження сучасного ринку)	5	Pass-fail exam
OC 13	Professional English for Earth`s scientists (Професійна англійська мова для наук про Землю)	5	Pass-fail exam
OC 14	Research practice (дослідницька практика)	5	Pass-fail exam
OC 15	Industrial practice (виробнича практика)	5	Pass-fail exam
Total scope of optional components:		minimum number of ECTS credits - 30	
SCOPE OF EDUCATIONAL PROGRAM		120	

2.2. Block chart of education program

