

## **APPROVED**

by Academic Board of

Institute of Geology

Protocol #9 by 28 February 2017

### **PROGRAMME**

#### **Entrance examination**

for Master of Sciences on «Economic Geology» educational program (speciality 103 – «Earth sciences», English taught)

#### **Preface**

Program of entrance examination is built on basic of the «General geology» normative course of Bachelor's programs: 6.040103 – «Geology» and 103 «Earth sciences».

Entrance examination is passing in form of written exams with four questions. Estimation of results is making by 100-mark scale. Total mark for entrance exam is a **sum** of marks from each answer in a ticket. The maximum mark for one answer is 25. All answers is making by writing.

#### **Themes for examination questions:**

##### **General Geology**

Structure and composition of Earth's crust, Earth's crust types. Plate tectonics concept and theory. Absolute and relative age of rocks, geochronological and stratigraphic scale. Geological processes, general characteristics of exogenous geological processes in the Earth. Rivers, fluvial depositional systems. Aeolian processes. Glacial processes. Weathering and its types. General characteristics of inner dynamics processes, sources and energy of endogenous geological processes. Magmatism, definition of magma. Volcanism, its characteristics, types of volcanic eruptions, post-volcanic processes, geographical distribution of volcanoes. Metamorphism and its types. Tectonic movements and deformation of rocks. Earthquakes, mechanism of earthquakes appearing and their parameters. Geographical distribution of earthquakes.

### **Literature:**

1. Allison I.S., Palmer D.F. Geology, the science of a changing Earth. – McGraw-Hill, 1980. – 579 p.
2. Lutgens F.K., Tarbuck E.J. Essentials of Geology. – Prentice Hall, 2012. – 554 p.
3. Boggs S. Principles of sedimentology and stratigraphy. – Prentice Hall, 1995. – 774 p.
4. Fossen H. Structural Geology. – Cambridge University Press, 2010.
5. Guilbert J.M., Park Ch.F. The Geology of ore deposits. – Waveland Press, 2007. – 985 p.
6. Monroe J.S., Wicander R. The Changing Earth: Exploring Geology and evolution, 7<sup>th</sup> edition. – Cengage Learning, 2015
7. Glossary of Geology (Editors: Neuendorf K.K.E, Mehl J.P., Jackson J.A.). – American Geological Institute, 2005.

**Examples of entrance examinations tickets**

Taras Shevchenko National University of Kyiv

APPROVED

Pro-Rector (Science & Educational  
work)

\_\_\_\_\_ V. Bugrov

« \_\_\_\_ » \_\_\_\_\_ 2017

**«Institute of Geology»**

**Entrance examination for Master of Science**

**Educational program:** «Economic Geology»

**Educational courses:** «General geology»

Ticket № 1

1. What are the major differences between the magmatism and volcanism?
2. Describe the basic concepts of plate tectonics.
3. Fluvial systems and non-marine deposition. Typical sedimentary rocks of non-marine facies.
4. Composition of Earth's crust. What is the origin of different types of Earth's crust?

Head of Attestation Committee

V. Mikhailov