

## Annotation of the subject

1. Name of the course: **Hydrology of Ukraine**
2. Lecturer: Klymenko Valentyna Grygorivna, assistant professor
3. Status: optional subject
4. Year: 4, semester 8
5. Total number of academic hours: 108, lectures – 24 , tutorials - 12, independent work – 72 hrs.)
6. Number of credits: 3
7. Previous studies: general geoscience, geology, geomorphology and paleontology, meteorology and climatology, general hydrology, ecology, cartography.

### *Abstract*

*The purpose:* to study the hydrological regime of water objects, to evaluate water resource potential of Ukraine and environmental problems of water use as well as water resources of Kharkiv region.

Special course "Hydrology of Ukraine" is closely connected with practical requirements of school education in the study of geography of Ukraine, as well as some sections of the socio-economic geography associated with the use of water resources.

The course consists of two modules:

### **Section 1. Rivers of Ukraine**

**Theme 1.** *Introduction.* Subject and objectives of the course "Hydrology of Ukraine." History of development as a science and its prospects. Hydrological objects of Ukraine: rivers, lakes, reservoirs, ponds, marshes, sea, underground water. The main directions and methods of research in hydrology of Ukraine.

**Theme 2.** Major river basins in Ukraine, their hydrographic characteristics.

**Theme 3.** The solid flow of rivers and its characteristics. Turbidity.

### **Section 2. Lakes, reservoirs, wetlands and groundwater of Ukraine.**

**Theme 4.** *Lakes and reservoirs in Ukraine.* Lakes, ponds, reservoirs, their role in the life of society and in nature. General characteristics of lakes and reservoirs in Ukraine.

**Theme 5.** *Wetlands of Ukraine.* Types of wetlands and their location in the territory. The main characteristics of wetlands and their use. The role of wetlands in the nature of Ukraine, environmental problems of wetlands, their conservation.

*Groundwater of Ukraine.*

### **Section 3. Seas of Ukraine.**

**Theme 6.** *Seas of Ukraine.* General characteristics of the Black and Azov seas, their features.

*Economic complex of Ukraine and its impact on water bodies. Protecting water.*

Conclusions of the course.

8. Forms of knowledge control: lectures, lectures-debates, practical work, independent work of students, consulting, tests.

### **9. Educational and methodological support:**

- V. G. Klymenko. Hydrology of Ukraine: Textbook for students of geography / V.G. Klymenko. Kharkiv : V.N. Karazin Kharkiv National University, 2010. - 124 p.
- V.G. Klymenko. The rate variability and flow: Methodical development for students-geographers/.V.G. Klymenko, S. O. Kiiko. - Kharkiv: V.N. Karazin Kharkiv

National University, 2010. - 14 p.

- V. Klymenko. Hydrology of Ukraine / Workshop for students of "Geography": Textbook. – Kharkiv: V.N. Karazin Kharkiv National University, 2015.-p. 201-239.

10. Language of teaching: Ukrainian

11. References:

### **Basic**

1. Vyshnevsky V.I. Rivers and reservoirs of Ukraine. Conditions and use: Monograph / V.I. Vyshnevskyy. - K.: Vipol, 2000. - 376 p.

2. Gorev L.M. Hydrochemistry of Ukraine: Textbook / L.M. Gorev., V.I. Peleshenko., V.K. Hilchevskyy. - K.: Vyshcha Shkola, 1995. – 307p. with illustrations.

3. Danylyshyn B.M.,. Natural resource potential for sustainable development of Ukraine / B.M. Danylyshyn, S.L. Doroguntsov, V.S. Mischenko and others. - K.: RVPS, 1999.-716 p.

4. Kukurudza S.I. Land surveying problems.: Textbook / Ed. V.K. Khilchevsky. - Lviv: Svit, 1999. - 232 p: il.

5. Khilchevsky V.K. Water supply and sanitation. Surveying aspects / V.K. Hilchevskyy. - K.: Publishing House "Kyiv University", 1999. -319 p.

### **Auxiliary**

1. Vyshnevsky P.F. Showers and stormwater runoff in Ukraine / P.F. Vyshnevskyy. - K.: Naukova Dumka, 1964.-291p.

2. Water Code of Ukraine. - K.: Astraea, 2000. - 60 p.

3. Small rivers of Ukraine: A Handbook / Ed. A.V. Yatsyk. - K.: Urozhai, 1991. - 296 p.

4. Method of Environmental Assessment of surface water quality for the respective categories. Interdepartmental regulatory document. - K., 1998.

5. The method of surface water ecological conditions mapping as to the water quality in Ukraine. / L.G. Rudenko, V.P. Pazov, V.N. Zhukynskyy and others. - K.: SYMVOLL \ 1998. - 48 p.

6. Handbook on water resources / Ed. B.I. Strelets. - K.: Urozhai, 1987.-304p.

### **12. Information Resources**

1. Central Scientific Library of Kharkiv V.N. Karazin National University funds .

2. The library funds of the Department of physical geography and cartography.

3. The Internet.