

## **Course Summary**

**Course Title: LAND RECLAMATION**

**Credits: 3 (108 h.)**

### **Course objective**

Acquirement of theoretical knowledge and practical skills in the organization, planning and carrying out the reclamation of degraded industrial-territorial complexes.

### **Course task**

Introduction to the methods for recovery of technogenic transformed lands.

### **Course outline**

Land Reclamation: general conception, relevance, history of development. Theoretical foundations of degraded land reclamation. Main trends and problems of restoration. Classification of degraded lands. Environmentally sustainable models of land reclamation. The preparatory phase of reclamation. Mining reclamation stage. Selection of environmentally reasonable methods for land remediation. Biological reclamation.

### **Learning outcomes**

After completing the course the students should be able to:

- Identify the problems connected with the restoration of degraded lands;
- Systemize the theoretical basis of degraded land reclamation;
- Select the stages, types and directions of remediation in compliance with specific situation;
- Determine the specific parameters of the reclamation objects, that determine the effectiveness of the final result;
- Classify the degraded land according to their suitability for rehabilitation;
- Share reclamation process on traditional stages;
- Determine the list of information to be collected to create a project of reclamation;
- Be familiar with the methods of assessment of the main types of work at the mining stage reclamation;
- Determine the specific stage of mining technical reclamation in open cast and underground mining;
- Evaluate the sequence of removal and preservation of topsoil before and during mining;
- Systematize the list of reclamation work required during the remediation;
- Evaluate the list of works on the biological stage of reclamation;
- Classify and analyze the trends of the biological stage of reclamation;
- Be familiar with general information on creating an ecological network in Ukraine.

**Training activities: lectures and practical training sessions.**

**End-of-the-term assessment: test.**

**Head of the Ecology Department,  
Professor A.I. Gorova**