

Course Annotation

Course Title: **Utilization and Recuperation of Waste**

Credits: 3 (108 h.)

Course objective

Mastering the complex of new methods and technologies of industrial and domestic waste utilisation.

Course tasks

Formation of the fundamental ideas about the basic methods and technologies of waste utilisation in order to minimize their impact on the environment and get their recoverable materials.

Course main chapters

Composition, properties and amount of hard domestic waste (HDW). The rate of accumulation of household waste. Separate and gross waste collection. Transportation of HDW. The landfills and their influence on the environment. Rubbish recycling plants, their influence on the environment. Waste burning plant influence on the environment. Environmentally responsible behavior and environmentally responsible consumption as a way to reduce the amount of the waste. Characteristics of industrial solid waste. Methods of the preparation and waste utilization. Mining waste utilization. Utilization of fuel and energy waste sector. Machine-building waste utilization. Chemical production waste utilization. Wood processing waste utilization. Construction industry waste utilization.

Learning outcomes

After attending the course students will be able to:

- Assess the quantitative characteristics of formation and accumulation process of industrial and household waste,
- Assess the danger level of different waste types on the environment and human health,
- Assess the influence of various waste management facilities on the environment and public health;
- Choose methods of waste utilization according to their qualitative and quantitative characteristics.

Teaching methods used:

- lectures and laboratory studies.

Final **assessment** of student's knowledge and practical skills is **examination**.

**Head of the Ecology Department,
Professor**

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