

HYDRAULICS, HYDRAULIC MACHINES AND HYDRAULIC DRIVES.
(course title)

COURSE SYLLABUS ABSTRACT

Lifting and transport, construction, road machinery and equipment

(speciality code and name)

Innovative equipment for the construction and operation of highways

(specialisation code and name)

Elevators, escalators, travelators and lifting and transport machines

(specialisation code and name)

	STUDY MODE
	full-time
Year	2
Semester	4
Lectures, hours	34
Practical classes (seminars), hours	16
Laboratory classes, hours	34
Course paper, semester	5
Exam, semester	4
Contact hours	84
Independent study, hours	60
Total course duration in hours / credit units	144/4

1. Course outline

The purpose of the discipline is to form specialists who can reasonably and effectively apply existing and master new knowledge about the device, principles of operation and methods of calculation of hydraulic machines, hydraulic equipment and hydraulic systems of transport and technological machines.

2. Course learning outcomes

Upon completion of the course, students will be expected to know:

- principles of graphic representation of hydraulic equipment;
- fundamentals of calculations, design and research of hydraulic system properties;
- purpose, classification and design requirements of hydraulic equipment;

be able to:

- identify and classify hydraulic equipment used on transport and technological machines;
- develop standard schemes of volumetric hydraulic drive of transport and technological machines;

- use reference literature on hydraulic drive of transport and technological machines;

possess:

- the main methods of research and design of hydraulic drive of transport and technological machines;
- engineering terminology in the field of hydraulic drive of ground transport and technological machines.

3. Competencies

UK-5 to be capable of self-development and improvement in professional activity

UK-6 To take the initiative and adapt to changes in professional activity

BPK-8 To develop, apply and operate hydraulic machines and industrial hydraulic drive in modern production

4. Requirements and forms of midcourse evaluation and summative assessment

The form of the current certification is a test. Examen