

HYDRAULICS AND HYDRAULIC PNEUMATIC DRIVE

(course title)

COURSE SYLLABUS ABSTRACT

6-05-0715-03 Cars, tractors, mobile and technological complexes
(speciality code and name)

"Computer engineering in hoisting and transport engineering"

"Computer engineering in construction and road engineering"

"Computer engineering in the automotive industry"

(specialisation code and name)

	STUDY MODE
	full-time
Year	3
Semester	5,6
Lectures, hours	34
Laboratory classes, hours	34
Course paper, semester	6
Exam, semester	5
Contact hours	68
Independent study, hours	40
Total course duration in hours / credit units	108/3

1. Course outline

The purpose of the discipline is to form competencies that form knowledge, skills and abilities in the field of principles of operation and calculation methods of hydraulic and pneumatic machines, hydraulic and pneumatic 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 hydro and pneumatic equipment;
 - fundamentals of calculations, design and research of properties of hydraulic systems;
 - purpose, classification and design requirements of hydraulic and pneumatic equipment;
- be able to:

- identify and classify hydro and pneumatic equipment used on cars, tractors and mobile technological complexes;
- to develop standard schemes for volumetric hydraulic drive of cars, tractors and mobile technological complexes;
- to use the reference literature on hydro and pneumatic drive of cars, tractors and mobile technological complexes;

to possess a skill:

- the main methods of research and design of hydro and pneumatic drive of cars, tractors and mobile technological complexes;
- engineering terminology in the field of hydro and pneumatic drive of cars, tractors and mobile technological complexes.

3. Competencies

Apply the basic laws of pneumatics and hydraulics in the design of automobiles, tractors, mobile and technological complexes

4. Requirements and forms of midcourse evaluation and summative assessment

The current certification oral and written.

The form of intermediate certification is an exam.