

## Hydraulics

(course title)

### **COURSE SYLLABUS ABSTRACT**

1-40 05 01 Information systems and technologies (majors in)

(speciality code and name)

1-40 05 01-01 Information systems and technologies (in designing and producing)

(specialisation code and name)

	STUDY MODE		
	full-time	part-time	part-time (shortened program)
Year	2	2	2
Semester	4	4	3
Lectures, hours	34	8	8
Practical classes (seminars), hours	34	8	8
Pass/fail, semester	4	4	3
Contact hours	68	16	16
Independent study, hours	76	128	128
Total course duration in hours / credit units	144/4		

#### 1. Course outline

Fluid and gas static. Fluid and gas kinematics. Fluid and gas dynamics. Hydraulic and pneumatic drive of process equipment.

#### 2. Course learning outcomes

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

- basic properties of liquids and gases;
- basic laws of fluid and gas mechanics;

be able to:

- solve the problems of statics, kinematics and dynamics of liquid and gas;

possess:

- methods of solving the problems of statics, kinematics and dynamics of liquid and gas;
- methods of calculation of hydraulic and pneumatic systems.

#### 3. Competencies

SK-4 – Use the basic laws of natural science disciplines in professional activities.

#### 4. Requirements and forms of midcourse evaluation and summative assessment

– verbal-written: protection of practical classes, test.