Process equipment parts and mechanisms
(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	3	3, 4	2, 3
Semester	5, 6	5, 6, 7	4, 5, 6
Lectures, hours	68	14	14
Practical classes (seminars), hours	50	12	12
In-class test (semester, hours)		5 semester (2 hour)	4 semester (2 hour)
Course project, semester	6	7	6
Exam, semester	5	5	4
Pass/fail, semester	6	6	5
Contact hours	118	28	28
Independent study, hours	110	200	200
Total course duration in hours / credit units	228/6		

1. Course outline

Normalization and control of parameters accuracy. Principles for constructing tolerance and fit systems. Classification and basic requirements for machine parts and assemblies. Design principles and methods, development stages. Mechanical transmissions. Friction and shift gears. Worm gears and handed over screw-nut. Shafts and axles. Rolling and sliding bearings. Seals. Threaded connections. Connections of parts of ingenuity. Permanent connections. Regulation of gear and gear accuracy.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know**:** device, principle of operation, technical characteristics, scope of application of basic mechanisms, typical parts and components of machines; basis of calculation of machine parts and assemblies according to the performance criteria; general principles, methods and stages of design;

be able to**:** apply methods of analysis of machine-building structures; apply standard methods of calculation of machine parts and assemblies; design machine parts and assemblies according to the specified specifications using reference literature, design automation tools;

possess: skills of analysis of the device and principle of operation of machine mechanisms and components; skills in calculation and design of typical units of machine-building structures.

3. Competencies

SK-6 – Own the basis for the design of mechanisms, machines, technological equipment and technological processes of machine-building production.

4. Requirements and forms of midcourse evaluation and summative assessment

– verbal-written: protection of practical classes, academic year project, test, exam.