

AUTOMATIC CONTROL THEORY

(course title)

COURSE SYLLABUS ABSTRACT

6-05-0713-04 Automation of technological processes and production

(speciality code and name)

Automation of technological processes and production in mechanical engineering
(concentration)

	STUDY MODE
	full-time
Year	3
Semester	6
Lectures, hours	34
Practical classes (seminars), hours	16
Exam, semester	6
Contact hours	50
Independent study, hours	58
Total course duration in hours / credit units	108 / 3

1. Course outline

The aim of the academic discipline is to expand the technical horizons of students, familiarize them with the main trends in automation of production management and master the general principles and tools necessary for managing dynamic systems of various physical natures in relation to production and technological processes in mechanical engineering.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know: principles and types of automatic control systems (ACS) for technological processes; types of ACS, principles of their construction; capabilities of ACS

be able to: select an ACS taking into account the requirements for technological processes; evaluate the stability and efficiency of the ACS; eliminate or reduce sources of ACS errors

to possess a skill: in building automatic process control systems; conducting an assessment of the stability and efficiency of automatic process control systems

3. Competencies

Be capable of self-development and improvement in professional activities

Master the basics of research activities, search, analyze and synthesize information

Show initiative and adapt to changes in professional activities

Evaluate the parameters of the automatic control system, ensure comprehensive automation of technological processes in the industry

4. Requirements and forms of midcourse evaluation and summative assessment

When studying the discipline, a modular-rating system of assessing students' knowledge is used. Intermediate control of academic performance involves assessing the performance of practical work. The form of interim assessment is an exam.