

# **AUTOMATIC CONTROL THEORY**

(course title)

## **COURSE SYLLABUS ABSTRACT**

6-05-0715-03 Cars, tractors, mobile and technological complexes

(speciality code and name)

Computer engineering in material handling engineering

Computer engineering in construction and road engineering

(concentration)

	STUDY MODE
	full-time
Year	2
Semester	3
Lectures, hours	16
Laboratory classes, hours	34
Exam, semester	3
Contact hours	50
Independent study, hours	58
Total course duration in hours / credit units	108/3

### 1. Course outline

The purpose of the academic discipline is to master the general principles and basic methods of constructing and researching automatic control systems and their use in the design of real systems.

### 2. Course learning outcomes

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

- main elements of control systems;
- feedback principle;
- transfer functions;
- elementary links of control systems;
- frequency characteristics of linear control systems;
- criteria for the stability of self-propelled guns.

be able to:

- equivalently, transform control systems to a form convenient for analysis and calculate their stability;

- build frequency characteristics;
- investigate the quality of transient processes;
- find parameters of standard regulators for given objects .

to possess a skill:

- modeling of control systems;
- construction of transient characteristics on a computer.

### 3. Competencies

– Apply knowledge of the design and principles of operation of automatic systems and control systems of mobile technological machines

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

TKU – tests in the form of tests, PA – exam in the form of a test.