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 the automotive industry
(concentration)

	STUDY MODE
	full-time
Year	**3**
Semester	6
Lectures, hours	16
Practical classes (seminars), hours	34
Laboratory classes, hours	16
Exam, semester	6
Contact hours	66
Independent study, hours	42
Total course duration in hours / credit units	108/3

1. Course outline

The aim 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:

- basic elements of control systems;
- feedback principle;
- transfer functions;
- elementary links of control systems;
- frequency characteristics of linear control systems;
- stability criteria of ACS.

be able to:

- equivalently transform control systems to a form convenient for analysis, calculate their stability;
- construct frequency characteristics;
- investigate the quality of transient processes;
- find the parameters of standard regulators for given objects.

to possess a skill:

- construction of transient characteristics on a computer.

3. Competencies. Apply knowledge about the structure and operating principles of automatic vehicle systems.

4. Requirements and forms of midcourse evaluation and summative assessment

Tests are carried out in the form of electronic tests on the Moodle platform. The exam is carried out in the form of an electronic test on the Moodle platform.