Mechanical Engineering Technology

COURSE SYLLABUS ABSTRACT

Specialty: 6-05-0715-03– Cars, tractors, mobile and technological complexes
Specialization: Computer Engineering in Lifting and Transport Engineering, Computer Engineering in Construction and Road Engineering, Computer Engineering in Automotive Engineering

	The form of higher education
	Full-time
Year	4
Semester	7
Lectures, hours	34
Practical classes (seminars), hours	16
Laboratory classes, hours	34
Course paper, semester	7
Exam, semester	7
Contact hours	84
Independent study, hours	76
Total course duration in hours / credit units	160/5

1. Course outline
The purpose of the discipline is to form a set of students' knowledge on the basics of engineering technology.

2. Course learning outcomes
Upon completion of the course, students will be expected to
know:
- requirements for the accuracy of mechanical engineering products and methods for ensuring it in production;
- methods for determining processing errors;
- types and categories of production and requirements for the manufacturability of parts of cars and tractors;
- methods for regulating technological processes and assessing their technical and economic indicators;
- methods for processing machine parts and methods for assembling mechanisms;
- sequence of development of technological processes of machining parts, methods of designing operations for processing parts and assembling mechanisms;
- trends in the development of mechanical engineering technology;
be able to:
- choose a rational design of parts and workpieces;
- develop technological processes for manufacturing machine parts and assembling mechanisms;
to possess a skill:
- development of route technology;
- determination of primary processing errors;
- evaluation of cutting modes and rationing of the technological process of manufacturing typical car parts.

3. Competencies:
To be capable of self-development and improvement in professional activity. To master the basics of research activities, search, analysis. Use the methodological foundations of machine production technology to develop technological processes for manufacturing and assembling components of cars, tractors, mobile and technological complexes.

4. Requirements and forms of midcourse evaluation and summative assessment:
Oral written and technical forms are used to diagnose competencies, as well as a modular rating system. The following diagnostic tools are used to assess the level of knowledge of students: for current certification: reports on laboratory work and practical exercises; electronic tests for conducting control work; protection of coursework; for intermediate certification: the exam.