DESIGN INTERNSHIP
(course title)

INTERNSHIP COURSE SYLLABUS
ABSTRACT

6-05-0715-03 Cars, tractors, mobile and technological complexes
(speciality code and name)

Computer engineering in hoisting and transport engineering
Computer engineering in construction and road engineering
Computer engineering in the automotive industry
(concentration)

	STUDY MODE
	full-time
Year	3
Semester	6
Total course duration in hours / credit units	216/6

1. Internship course outline (aims and objectives)

The objectives of the practice are to deepen and consolidate theoretical knowledge in the field of automobile and tractor construction, production of mobile and technological complexes, obtaining professional skills and professional experience; studying individual objects and processes in production conditions; consolidating theoretical knowledge acquired by the student during classroom classes; preparing for coursework, projects; introducing the student to the social environment of the enterprise (organization) in order to acquire the social and personal competencies necessary for work in the professional field; mastering the functional duties of officials in the field of future professional activity.

2. Course learning outcomes

Learning outcomes:

– to consolidate theoretical knowledge in the field of design and principles of operation of basic cars, tractors, mobile and technological complexes; methods of selecting the main parameters of cars, tractors, mobile and technological complexes; requirements of production organizations for cars, tractors, mobile and technological complexes; design methodologies used at the enterprise; regulatory and scientific and technical documentation, used at the enterprise in the design of cars, tractors, mobile and technological complexes;

- to master practical skills in the field of analyzing scientific, technical and design documentation; determining the basic parameters of cars, tractors, mobile and technological complexes; developing design solutions for cars, tractors, mobile and technological complexes; drafting and processing technical documentation in accordance with the requirements of standards;

– to develop practical expertise in the field of preparation of assignments for the development of design solutions; determination of the values of the main parameters of machines; technical calculations and analysis of the effectiveness of design solutions; creation of design documentation in accordance with the requirements of standards.

3. Competencies

To use methods of graphic representation of objects on a plane and in space, to create drawings of parts and assemblies, to draw up and develop design documentation according to the requirements of the Unified System of Design Documentation

To use the basic concepts of methods of obtaining structural materials, methods of surface treatment, to apply them in the manufacture of parts of cars, tractors and electric vehicles

To apply in practice physical and mathematical methods for calculations of mechanisms, machines and structures, to analyze and develop their kinematic and dynamic schemes

Perform calculations for strength, rigidity, and stability of structures

Use methods of research, construction, analysis of kinematics and dynamics of mechanisms and machines, calculate mechanical systems of cars, tractors, mobile and technological complexes

Use the basic concepts of technical regulatory legal acts that ensure the accuracy of manufacturing and product quality, technical and information compatibility, interchangeability in accordance with the level of development of science, technology and technology, use appropriate measuring instruments and devices

Apply the basic laws of pneumatics and hydraulics in the design of automobiles, tractors, mobile and technological complexes

Use calculation methods that confirm the operability of the designed structures, develop and issue design documentation for the designed products

Use basic computer-aided design technologies, computer-aided drawing techniques, three-dimensional models, and other graphic works.

4. Form of midcourse evaluation

The form of intermediate certification. The intermediate certification in practice is a differentiated credit. The final grade is defined as the sum of the rating control of the internship (up to 60 points), intermediate certification (up to 40 points).