

# ENGINEERING GRAPHICS

## COURSE SYLLABUS ABSTRACT

**Speciality** 6-05-0714-02 «Mechanical engineering technology, metal-cutting machinery and tools»

**Concentration** «Mechanical engineering technology»

	STUDY MODE	
	Full-time	Part-time
Year	1	1
Semester	1, 2	1, 2
Lectures, hours	34	6
Practical classes, hours	68	12
In-class test (semester, hours)	-	1, 2 (8 hours)
Pass / fail, semester	2	2
Exam, semester	1	1
Contact hours	102	26
Independent study, hours	114	190
Total course duration in hours / credit units	216/6	

### 1. Course outline

Introduction. Projections of a point, a straight line, a plane. Types, sections, sections. Drawing conversion methods. Metric tasks. Surfaces. Positional tasks. General information about KOMPAS-3D system.

Classification of threads, threaded connections. Specification. Slotted and keyed connections. Sketching of parts such as "shaft", "gear wheel". Assembly drawing of the node. Detailing. Making working drawings of parts. Rules for applying dimensions and designations on engineering drawings.

### 2. Course learning outcomes

- **know:** the methods of projection in a given system of projection planes of a point, a straight line, a plane and a surface; ways of solving positional and metric problems; geometric shaping of machine-building parts and GOST ESKD.
- **be able to:** solve positional and metric problems, execute and read engineering drawings, use standards and reference books, make drawings using computer graphics.
- **to possess a skill:** execution and reading of engineering drawings and formalization of design documentation in accordance with GOST ESKD.

### 3. Competencies

Possess the skills of basics of descriptive geometry, methods of machine-building projection drawing, execution and reading of machine-building drawings, development and formalization of design documentation.

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

A module-rating system for assessing knowledge is used. Intermediate control of progress is carried out on the basis of the performance and protection of a number of graphic individual tasks with scoring. The current certification is carried out in the form of an exam (1st semester) and a differentiated test (2nd semester).