Academic discipline:
«Fundamentals of Software Engineering»

Code and name of specialty	6-05-0612-01 Software Engineering
Training course	1
Semester of training	1
Number of class hours:	64
Lectures	30
Seminar classes	-
Practical classes	34
Laboratory classes	-
Form of current assessment (credit/differential credit/exam)	exam
Number of credits	3
Competencies to be formed	Mastering the academic discipline «Fundamentals of Software Engineering» should ensure the formation of basic professional competence: to use approaches and standards for creating in regulated processes complex, replicated software tools that meet the customer's formal requirements.

Brief content of the academic discipline:

Basic concepts of software engineering. The history of the development of software engineering as an industry. Programmes, software programmes and products. IT projects. Programming technologies. Software engineering standards. The SWEBOK project.

The organization of the technological process of software product development. Stages of creating a software product. Software product lifecycle. Software product development methodologies. Project organization and planning. Document flow in the software product lifecycle. General information about the requirements. Synthesis and analysis of requirements.

Software product design technologies. Technical specification for the development of a software product. Stages of construction. Approaches to the design of software tools. Software product design tools. Version control.