

## THE RELATIONSHIP OF TECHNOLOGY EDUCATION METHODOLOGY WITH OTHER SUBJECTS

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### Annotation:

This article explores the interrelationship between the methodology of technology education and other academic disciplines, as well as its importance in the modern educational process. It analyzes how integration with subjects such as pedagogy, psychology, physics, mathematics, informatics, and chemistry contributes to the development of students' theoretical knowledge, technical thinking, and practical skills. The article also highlights the role of interdisciplinary connections in enhancing educational effectiveness, creativity, and innovation in learning.

### Keywords:

technology education, methodology, interdisciplinary connection, pedagogy, psychology, integration, practical skills, educational process, innovation, effectiveness, technical thinking

### Introduction

In recent years, special attention has been given to interdisciplinary integration in the education system. Modern education requires not only the transfer of knowledge but also the development of practical competencies and problem-solving skills. In this context, the methodology of technology education plays a significant role.

Technology education differs from other subjects in that it combines theory with practice. Through this subject, students gain the ability to apply knowledge acquired in other disciplines to real-life situations. Therefore, teaching technology education in close connection with other subjects is essential for improving the overall quality of education. Interdisciplinary integration allows students to see the connections between different fields of knowledge, which helps them develop a holistic understanding of the world. It also prepares them for future professional activities in a rapidly developing technological society.

### Main Part

First of all, the methodology of technology education is closely related to pedagogy. Pedagogy provides the theoretical foundation for organizing the teaching process, selecting appropriate teaching methods, and evaluating students' learning outcomes. Effective pedagogical approaches, such as interactive methods, project-based learning, and collaborative learning, are widely used in technology education. Secondly, technology education is strongly connected with psychology. Psychological knowledge helps teachers understand students' cognitive development, motivation, interests, and individual differences. Taking these factors into account makes it possible to organize lessons more effectively and create a positive learning environment. For example, practical tasks and creative projects increase students' interest and engagement.

Another important connection is with physics and mathematics. Technology education relies heavily on these subjects. Understanding the principles of mechanics, electricity, and energy is

impossible without basic knowledge of physics. Similarly, mathematical skills are essential for measurements, calculations, and designing technical objects. For instance, when creating a model or mechanism, students use formulas, proportions, and geometric concepts. In addition, technology education is closely linked with drawing (engineering graphics), informatics, and chemistry. Drawing helps students develop spatial thinking and visualization skills, which are important for designing and modeling. Informatics supports the use of modern technologies such as computer-aided design (CAD), programming, and digital tools. Chemistry is important for understanding the properties of materials, their composition, and their practical applications in production processes.

Furthermore, interdisciplinary integration encourages the development of important 21st-century skills such as critical thinking, creativity, communication, and collaboration. Students learn how to solve real-life problems, work in teams, and generate innovative ideas. For example, project-based learning allows students to integrate knowledge from different subjects while working on practical tasks. Another significant aspect is the use of innovative teaching technologies. Modern methods such as STEM education (Science, Technology, Engineering, Mathematics) and STEAM (including Arts) emphasize interdisciplinary learning and are widely applied in technology education. These approaches help students develop both technical and creative abilities.

### **Conclusion**

In conclusion, the methodology of technology education develops in close interaction with various academic disciplines. This relationship ensures the comprehensive development of students by combining theoretical knowledge with practical application. Strengthening interdisciplinary connections not only improves the effectiveness of the educational process but also prepares students for real-life challenges. By properly organizing integration, it is possible to enhance the quality of education and train competent, innovative, and skilled young specialists who meet the demands of modern society.

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