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## **THE ROLE OF PHILOSOPHY IN THE MORAL AND AESTHETIC EDUCATION OF STUDENTS IN TECHNICAL FIELDS**

**Abstract:** In the context of modern higher education, the moral and aesthetic development of students is considered one of the key factors in shaping well-rounded specialists. This is especially important for students in technical fields, who, while gaining professional knowledge, also require a strong foundation of humanistic and philosophical values. Philosophy plays a crucial role in this process, as it not only cultivates logical and critical thinking but also fosters ethical responsibility, spiritual maturity, and aesthetic appreciation. Through the study of philosophy, technical students learn to perceive the social and cultural significance of technology, understand the humanistic aspects of innovation, and develop the ability to make responsible decisions in both professional and social contexts. Furthermore, philosophical education enhances students' creative potential and helps integrate moral and aesthetic values into their technical practice. This study highlights the importance of teaching philosophy as a tool for harmonizing technical knowledge with universal human values, thus preparing future engineers and specialists to become not only competent professionals but also socially responsible and culturally sensitive individuals.

**Keywords:** Philosophy; technical education; moral education; aesthetic development; critical thinking; humanistic values; professional ethics; student worldview.

In the context of today's globalization and technological progress, profound transformations are taking place in all spheres of human life. The development of society, socio-political processes, economic relations, and cultural life are closely linked to the advancement of science and technology. Therefore, educating young people in technical fields not only as specialists with

professional knowledge and skills, but also as individuals with a broad worldview, spiritual maturity, and the ability to think independently has become an urgent issue. The main goal of teaching philosophy to technical students is to develop their thinking both theoretically and practically, to broaden their worldview, and to cultivate the ability to make logical decisions in various life and professional situations. In the process of engineering education, philosophy serves not only as a source of theoretical knowledge but also as a methodological foundation that directs scientific research activities. Philosophy, as a field of knowledge, studies the general laws of human beings and society, deepens thinking, and integrates the social and natural sciences.

Today, while technical students are mastering numerous specialized subjects, philosophical knowledge allows them to approach scientific research from new perspectives, to develop systematic and creative ways of thinking, and to apply them to problem-solving. The rapid development of artificial intelligence, information technology, energy, engineering, and other technical fields requires philosophical reflection. This is because any technological achievement first and foremost affects society and human life, and this process requires philosophical analysis and evaluation. From this point of view, effective teaching of philosophy in technical higher education institutions, based on modern pedagogical technologies, interactive methods, and innovative approaches, has become one of the most pressing tasks of our time. Developing philosophical thinking, in theory, means systematizing knowledge and ideas, while in practice it means applying them in everyday life and professional activity. This not only enriches students' worldview but also helps them become independent decision-makers, responsible individuals, and socially active citizens.

The object of this research is students of technical fields and the process of developing their philosophical thinking. In modern technical higher education institutions, it is important not only to study specialized disciplines but also to cultivate a broad worldview in students and integrate socio-philosophical

knowledge with technical thinking. Philosophical thinking is a vital means of developing not only the theoretical knowledge of future specialists in the technical field but also their ability to think independently, approach problems creatively, and make sound decisions in challenging situations. Therefore, this study analyzes the influence of philosophical knowledge on students' academic activities, their ability to apply such knowledge in practice, and the role and effectiveness of philosophy in technical education. As the subject of the study, pedagogical conditions, didactic tools, interactive methods, and innovative approaches that contribute to the development of philosophical thinking among technical students are examined, with special attention paid to the interconnection between technical sciences and philosophical knowledge.

Throughout the research, philosophical, pedagogical, and psychological approaches are integrated. Theoretical analysis of scientific literature, concepts, state educational standards, and advanced foreign practices related to philosophy, pedagogy, and technical education was conducted. Using comparative analysis, the features of philosophical thinking among technical students and students of social-humanitarian fields are studied, and their specific characteristics are identified. Based on sociological observation and surveys, students' interest in philosophy, their attitudes, and their level of mastery are examined, along with opportunities for practical application. Pedagogical experiments involving interactive methods, problem-based situations, group work, and modern technologies are carried out in philosophy classes, and their effectiveness is evaluated. The collected data are statistically analyzed, leading to generalized scientific conclusions. Overall, the chosen methods serve to substantiate the findings, to identify effective ways of fostering philosophical thinking among technical students, and to apply methodological innovations in the teaching of philosophy. This approach ensures that philosophy in technical education finds its place not merely as a theoretical discipline but as a practical and methodological guiding force.

The issue of developing philosophical thinking among technical students is one of the most urgent areas of contemporary higher education. Technical knowledge alone cannot fully explain the progress of humanity. According to Aristotle, philosophical reflection-the search for causes and essences-lies at the foundation of all scientific activity. From this perspective, the development of philosophical thinking in technical education fosters not only scientific and technical competencies but also social and ethical responsibility. It is important to note that philosophical thinking broadens the scope of technical students' reasoning and prepares them not only for specific professional activities but also for acting based on universal human values. For instance, Eastern thinkers such as Ulugh Beg, al-Biruni, and Avicenna harmonized scientific discoveries with philosophical thought. Their works consistently combined technical and natural sciences with philosophical concepts, a historical experience that remains highly relevant to today's educational processes.

At the same time, modern pedagogical approaches provide effective tools for the development of philosophical thinking.

The development of philosophical thinking among technical students must be recognized as one of the key objectives of modern higher education. Technical knowledge alone is not sufficient to shape a well-rounded specialist. Philosophical thinking expands students' worldview, enables them to understand reality more profoundly, fosters logical and independent reasoning, encourages systematic approaches to problems, and supports creative decision-making. The study highlights that the development of philosophical thinking in technical education serves two essential functions: first, it reinforces professional knowledge with a general methodological foundation; second, it strengthens students' moral and social responsibility. Eastern scholars such as al-Farabi, Avicenna, al-Biruni, and Ulugh Beg also emphasized the unity of scientific knowledge and philosophical reflection, a lesson that retains its significance today. Furthermore, the effectiveness of teaching philosophy in technical

education increases when combined with modern innovative approaches. Interactive methods, critical thinking exercises, case studies, project-based learning, and the use of information technologies foster deep reflection, broader perspectives, and a tendency toward creative inquiry. In the context of digital transformation, artificial intelligence, and technological progress, it is crucial for students to approach technical activities not only from a practical standpoint but also from social, ethical, and philosophical perspectives.

In conclusion, fostering philosophical thinking in technical students enhances not only their professional competence but also their intellectual capacity, social responsibility, and commitment to humanistic values. This ensures the preparation of not just highly skilled specialists in the technical field but also morally mature individuals with a broad worldview who can consciously contribute to the progress of society. Thus, the development of philosophical thinking should be regarded as a strategic pedagogical and spiritual process within the technical education system.

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