

CONFERENCE ARTICLE

INNOVATIVE-DIDACTIC MODEL OF TEACHING THEORETICAL MECHANICS IN FORMING GENERAL TECHNICAL COMPETENCE

Parmonov Abdultalib Abduvahob

Associate Professor, PhD, Uzbekistan National university Jizzakh branch, Uzbekistan

ABSTRACT

This in the thesis future engineers general technician competence to develop aimed at component and develop a meaningful model issued is , then theoretical mechanics science to the profession focused , innovative and interdisciplinary integrated teaching opportunities based on given.

KEYWORDS

General technician competence , UTK model , profession orientation principle , interdisciplinary continuity.

INTRODUCTION

The development of the UTK of bachelors of engineering education is aimed at professional self-development, increasing the level of development of the motivational-informational component and UTK, and thereby transforming the didactic tasks of modeling the information environment into the process of intensive professional training in individual reflection .

This situation can be changed by giving theoretical mechanics an intensive career orientation. The greatest productive impetus for developing personal interest in studying theoretical mechanics is provided by an intensive career-oriented approach to education [1].

The principle of vocational orientation of education was initially formulated in the pedagogy of vocational education and has retained its importance as a leading methodological principle to this day. Therefore, the first and main didactic principle of the development of UTK in the process of mastering the science of theoretical mechanics is the principle of vocational orientation.

This principle was originally formulated as a principle of transforming education through practice, which combined the principle of professional orientation with the principle of

scientificity.

To effectively organize a career-oriented pedagogical process, it must meet a number of requirements. This can be seen in Figure 1 [2] .

This logically implies the following principle of interdisciplinary continuity in the development of UTK in interdisciplinary teaching of theoretical mechanics . This principle implies the mastery of theoretical mechanics using general concepts, laws, theories and methods of knowledge inherent in a number of disciplines, as well as the formation of a system of activities and relationships common to them.

Theoretical mechanics is based on mathematics (mathematical analysis, linear algebra and analytic geometry, differential equations, ...), physics (classical mechanics) and computer science (applied applications) and serves as a foundation for general engineering disciplines such as the resistance of materials, machine parts, and the theory of machines and mechanisms. Therefore , it is sciences with integral in integration to be , to be fundamental technical skills of an engineer readiness in formation important place holds (Figure 2).



1-rasm. Kasbga yo‘naltirilgan ta’limni muvaffaqiyatli amalga oshirish talablari

Theoretical mechanics science primary " the basis is inherently universal " has was physicist laws , scientific and technical theories , fundamental principles , concepts and to them involved methods complex organization will reach " [3] .

Technique " Theoretical " of OTTs "mechanics " course modern mechanic engineer's scientific worldview in the formation separately importance has be creative think can expert preparation for wide opportunities creates . Mechanics basics according to deep and systematic without knowledge mechanical engineering in the direction of next all sciences thorough mastery for necessary foundation creating It won't be possible .

Modern education technologies The task is to provide fundamental training from laughing consists of to the student known a science his/her content main similar part separate show ability Independent thinking and new to knowledge has since then , studied knowledge new under the circumstances use possible will be .

Theoretical mechanics science teaching during information from technologies targeted use UTK development following – digital information from technologies to the goal appropriate use on the principle correct This is coming . of the principle main content theoretical mechanics science in education education informatization from the means use from the stage out , information and communication technologies (ICT) in a systematic , targeted manner directed and didactic in terms of based without to use to pass in mind This approach general technical competencies whole complex to develop service does .

Model successful performance he / she is certain to the requirements answer to give need .

Model's to oneself The uniqueness is , first of all , its action to do educational environment with high at the level suitable on arrival manifestation will be . General technician competence develop model theoretical mechanics science all education in the forms applicable training environment with harmony necessary . The model is effective performance for it is material , intellectual , informational and other kind of resources with It is also important to provide from the conditions one is considered.

Model's main from the requirements again one is simplicity it is different researchers for understandable , clear , concise and to use comfortable to be Similarity and model completeness , accuracy , and designated criteria based on intended to the results achieve opportunity to give means .

Theoretical mechanics almost all technique supreme education in the directions to be trained in consideration If we take , the model to be created is general without where this subject is taught all bachelor's degree to programs suitable arrival Such approach to students different engineering to the directions related practical tasks in solution calculation models create , obtained the results analysis to do and make them realistic in activity application skills formation opportunity gives .

In students UTK develop model five main from components organization found is , below them every to one separately stopped Let's go .

Normative component engineering DTS of the route and qualification students and work of the beruvchi requirements own to you takes .

Modern information and communication technologies based innovative education technologies and didactic models public and effective application through education system digital to the generation adaptation time demand is [5]. Practical from programs used without to the profession directed and research in character tasks to do , as well as remote communication from the means use training process further effective organization to reach service does and human only in activity development possible said to the idea based on the UTK to develop activity

approach done to increase opportunity gives said to the conclusion our arrival possible . Activity approach main idea L. S. Vygotsky [6] , VVDavydova [7] , D.Devi [8] , A.N. Leontiev [9] , GISHchukina [10] and others' in his works reflection This process subject psychological from the characteristics come out , outside objective of activity step by step change through internal mental to activity rotation as a result to the surface comes . Activity approach essence students new activity types — research , investigation and creative activity — mastery requirement In this process study material systematized and is strengthened , in the student independence and responsibility develops , as a result general technical preparation quality increases .

Conclusion and recommendations. Research results this It shows that the future engineers general technician competence develop efficiency many in terms of theoretical mechanics science content to the profession focused , interdisciplinary integrated and digital technologies with enriched approach based on organization to reach is related to UTK . development working issued component and meaningful model normative requirements , modern engineering education to the needs and working to the real practice of issuing suitable incoming complex pedagogical system as formed .

As a result The model created will be engineers general technician competence in formation high to efficiency has and make them real release in the environment effective activity to show preparing integral , integrative and innovative pedagogical system as himself manifestation does .

REFERENCES

1. Parmonov AA, Pedagogical essence and model of formation of information and technical competence in applied mathematics students in bachelor studies // *frontline social sciences and history journal*. – 2023, volume 03 issue 05 – PP: 26-34. <https://doi.org/10.37547/social-fssjh-03-05-03> . SJIF IMPACT FACTOR 2023: 6.895
2. Parmonov A. A. General technical sciences in education students information - technical competence effective of formation innovation . / " In Uzbekistan science and education : problem and " Prospects " scientific - practical conference . – 2021. – P. 37-40.
3. Parmonov A. A. Students scientific - technical creativity to the activity attraction of reaching psychological and organizational pedagogical / « Science and in education innovation : problem and perspectives » conference . – 2020. – P. 30-32.
4. Parmonov A. A. General technical sciences in education students information - technical competence effective of formation innovative methods // *Education , science and innovation* . – 2021 , No. 2. – P. 108-112 . *Spiritual - enlightening , scientific - methodical magazine* (13.00.00 No. 18).
5. Parmonov A. A. , Modern digital technologies and them education to the process current of reaching necessity // *Samarkand state university scientific Research*
6. *Bulletin* . – 2021, No. 2. – P. 152-156. *Scientific magazine* ISSN 2181-1296. (13.00.00 #7).
7. Vygotsky L.S. *Pedagogical psychology* / L.S. Vygotsky. - M.: Pedagogika-press, 1999. - 533 p.
8. Davydov V.V. *Chto takoe uchebnaya deyatel'nost'?* / V.V. Davydov // *Obrazovanie: tradition and innovation and social change* - M.: RAO, 1997. - S. 84-96.
9. Devi Dj, *Psychology and pedagogy myshleniya* / Dj. Devi; ped. English - M.: VLADOS, 1997. - 412 p.
10. Leontev A.N., *Deyatel'nost. Soznanie. Lichnost* / A.N. Leontev. - M.: Smysl, Academy, 2005. - 352 p.

11. shchukina G.I. Rol deyatelnosti v obrazovatelnom procese. Uchebnik dlya uchitelya / G.I. Shchukin . - M.: Prosveshchenie, 1986. - 144 p.