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Administrative Fundamentals of Ecological Competence Forming in Agricultural Engineering Students Under Conditions of Their Professional Training

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Abstract

The purpose of the article is to study the problem of the formation of ecological competence of future agricultural engineers based on modeling the content of professional training as a holistic pedagogical process of managing students' learning activities. Theoretical and empirical methods (monographic analysis, synthesis, modeling, forecasting) were used in the research. The model for ecological competence forming of future agricultural engineers was presented as a semantic network. The requirements of educational qualification descriptors were the initial points for the model. The finishing point was an aggregate of criteria of professional competence. Experimental research was conducted based on the Kharkiv Petro Vasylchenko National Technical University of Agriculture on the example of educational disciplines that formed future specialists' professional competence at a bachelor and master levels in Agricultural Engineering. Research results confirmed the adequacy of the model for the process of ecological competence forming in agricultural engineering students during their professional education. Realization of the model for the process of ecological competence forming in future engineers of agrarian sphere provided visualization of pedagogical conditions for didactic processes activation and organizational and technological algorithms under the conditions of management, co-management, and self-management of students' learning. As a result, the quality of professional training has increased. The practical significance of the obtained results lies in the possibility of applying the proposed management model in the educational process of higher education institutions in the process of forming the environmental competence of future engineers in the agricultural sector.

Keywords

[Ecological competence](#) [Engineering education](#) [Professional training](#)

[Agricultural engineers](#) [Model](#) [Management model](#)

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