# Analysis of theoretical and methodological bases of teaching object-oriented programming languages in higher school

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**Abstract.** In this paper, we affect one of the most urgent calls of our time - problem of educating at higher school.

One of the most pressing challenges of our time is the problem of teaching in higher school. Training of young people in the sphere of the latest computer technologies is the teachers' task. When teaching teachers should change the methodology of training specialists in higher school in accordance with the adequately changing development pace. Software changes due to the appearance on the market of new information technologies. The subject area of computer science changes in an extremely dynamic way. Teachers of higher school that teach subjects associated with the technology of software creation are constantly faced with the problems of changing the content of curricula, working programs, methodical support (lectures, labs, tests, etc.), the development of new teaching and learning aids.

In connection with the application in the educational process of the various versions of educational software, teaching guides on the use of this software have to be accordingly changed. A certain bias towards the creation of software for complex systems has been recently observed; the tasks under consideration become much more complicated, so the old techniques and methods previously used to create simple or formalized programs are not enough. At the modern stage of social development, the needs of educational, industrial, commercial entities have significantly increased, and simple programs no longer meet them. Education of students of information specialties has not been provided yet with the necessary theoretical basis for the creation of complex software systems, the necessary subjects are often presented in the curricula fragmentary, in the list of elective courses.

**Keywords:** analysis, development, complex systems, information, object-oriented approach, model, education, methods, pedagogics, algorithmization

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