

New trends in university education in Russia: teaching Natural History for humanities

By Sergei A. Gulyaev

Astronomy Dept., Ural State University, 620083 Ekaterinburg, Russia

A reform of the content of university education is taking place in Russia today. A restoration of human directed principles, the denial of strict ideological components in education and an improvement in the teaching content of the humanities, are among the most important characteristics of the on-going reforms. An important part of today's activities is the introduction of the basics of natural sciences to the process of teaching humanities. We have gained four years experience in the establishment of natural sciences in humanities at the Ural State University (Ekaterinburg, Russia).

Here I present the methodological strategy of the basic general course of Natural History for humanities. The course is compulsory for undergraduate students of all the humanities (Depts. of Art, Philosophy, Sociology and Politology, Philology, History, Journalism and Economics). It begins from the first year and takes 3 semesters in the Dept. of Philosophy (60 hours of lectures and seminars) and 2 semesters in the other Depts. (40 hours of lectures and seminars). The course is united by a general idea — the History of the Earth. It is divided into three parts: (1) Cosmic period of the history of the Earth, (2) Matter and Energy (only for the Dept. of Philosophy), and (3) Geological and biological periods in the history of the Earth. The first (astronomical) part in turn consists of three chapters: (a) Scientific pictures of the world and their creators, (b) The real Universe (state of art geometry and physics of space), (c) "Genesis" (formation and evolution of the Universe, Sun and the Earth).

The adaptation of this course for different departments is one of the most important methodical problems. We include special topics in the course: Natural Science and Theology for students of the Philosophy Dept., Calendar and Chronology for Dept. of History, Science and the Mass Media for the Dept of Journalism, etc. Additional voluntary special courses were established which have been adapted to the needs of different departments; some of them are: Human Ecology, Legends and Myths of Sky, Synergy for Humanities, Mathematical Simulations for Humanities.

Further work in this field needs the involvement of new educational technology, the preparation of textbooks and methodological materials, the creation of distant-learning courseware and the organisation of conferences and seminars, where experience and ideas can be shared.