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ACADEMIC ENGLISH IN SPACE EDUCATION: A COURSE FOR NONNATIVE MASTER STUDENTS

Abstract

English for Academic Purposes (EAP) is a well-known and actively-developing field of education. In the broad variety of domains of EAP, however, special courses on the use of English in space research appear to be rather rare, despite the high demand for such competence in the international environment. Meanwhile, as space research is becoming more specialized, the need for more specific, subject-based, 'space English' teaching seems to grow. An attempt of filling this gap is presented in the paper. The article summarizes the experience of teaching EAP to Russian undergraduate students specializing in astrodynamics. The background of the course, principles of teaching and some features of the course are described. The course is taught to the master students of Moscow Institute of Physics and Technology (MIPT) attached to the Keldysh Institute of Applied Mathematics (KIAM) of Russian Academy of Sciences, namely to the Department of Space Systems Dynamics of KIAM. The department members are active in publishing in leading international journals (Q1-Q2) on space research while most of the newcomers to the department are undergraduate students. This has led to and created the opportunity to organize the necessary training in the form of a course. In this training cycle the students learn the standards of academic discourse, the principles of creating papers and oral presentations in English. At the end of the semester, the students create their texts and presentations on their own scientific work. The main feature of the course is its focus on the particular specialization of the students and on immediate application of the skills. This determines the choice of materials for the practical part of the course: these are articles from main "target" journals of the department, e.g. Acta Astronautica, Advances in the Astronautical Sciences, Advances in Space Research, AIAA Journal etc. The articles covering the astrodynamics have their own features, both at the linguistic level (specific vocabulary with an abundance of mathematical terms, particular use of tenses and other constructions etc.) and in the structure which often differs from the traditional IMRD ("Introduction, Methods, Results, Discussion") pattern. The articles are also distinguished by an abundance of extra-textual elements: graphical information and mathematical expressions. Therefore, the course pays attention to the design of these elements, as well as to the use of specialized software, for example, MATLAB, MathCad and others.