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Web based courses as an effective tool in teaching basic meteorology and promoting atmospheric science

A.E. Kardas (1), S.P. Malinowski (1), M. Ostrowski (2), and M. Kopec (1)

(1) Institute of Geophysics, Faculty of Physics, University of Warsaw, Warsaw, Poland (aekardas@igf.fuw.edu.pl), (2) Interdisciplinary Centre for Mathematical and Computational Modelling, University of Warsaw, Warsaw, Poland

Since 2006, the Institute of Geophysics, Faculty of Physics and the Centre for Open and Multimedia Education (COME) at the University of Warsaw, organize web based courses (e-learning) in practical meteorology. The courses are addressed to the University of Warsaw students (regardless of their major), but are open to a wider community of amateurs interested in in meteorology. In six editions of the course over 700 students attended.

Students are instructed how to find, interpret, understand and effectively use meteorological information available on the Internet. Syllabus includes: basic information on the atmosphere, circulations, meteorological processes and phenomena, principles of atmospheric measurements, satellite, radar meteorology, and numerical weather prediction. Open access Internet sites serving current and archived meteorological data provide a constant source of illustrations to the course. The principle is that the everyday weather worldwide is a live illustration to our instructions.

Following modern standards of teaching, the course combines different approaches to learning - individual and community based. Knowledge is transferred to students not only through the illustrated texts, but also through forum discussions. Individual exercises (analysis of synoptic charts, satellite or radar images) and games proposed by the tutors allow practicing incorporated knowledge. Group projects, including analysis of weather in various locations all across Europe improve students integration and provide additional motivation to learn. Participants are encouraged to look for and share the Internet sources of valuable information (e.g. weather stations serving road systems). Hints are given as to the trustworthy sites and institutions. Contacts with the tutors, fellow course participants and previous course graduates provide a sound basis for further networking and community based initiatives as web portals, amateur running numerical ether forecasts etc.