

This thesis tries to summarize the subject of non-Euclidean geometries, above all from the viewpoint of didactics. It brings about the outline of their historical development, practical implementation along with the description of these geometries, which is of use in the education process, especially in secondary schools. Investigated are also students' capabilities and limits in accepting non-Euclidean geometries, summarized are the most frequent problem areas in their teaching. The thesis also brings suggestions on how to avoid and prevent such problems along with the results of their practical verification on the basis of which some possible variations of school teaching are suggested.