## **ABSTRACT**

This thesis deals with modifications of professional microscopic methods for classroom use. There is a laboratory prepared sample Miocene age with marine microfossils of the Carpathian Foredeep. It was created manual for teachers, where is provided detailed instructions from finding a suitable locality, through sample collection, after their processing, and consequent observations. Each founded microfossil group is briefly characterised. The proces is properly modificate for realization of laboratories with elements of inquiry-based instruction at schools. At least this topic is incorporated in Framework Education Programmes and selected sample of textbooks.

**Key words:** laboratories, microfossils, Miocene, badenian, Carpathian Foredeep, manual for teachers, inquiry-based instruction