

## **ABSTRACT**

The aim of the bachelor thesis is to present practical applications of goniometric functions in various fields of mechanics. These are areas that are part of our daily lives in one way or another. The work describes or explains the necessary context in order to make the text understandable to a high school graduate. The work can be used as a teaching tool for teachers of physics or mathematics in secondary schools. Emphasis is placed on the application of goniometric functions. Previous knowledge of goniometric functions, especially goniometric patterns, is assumed. Much of the work is processed on the basis of internationally recognized lectures in physics. The work is not an exhaustive list of areas of physics in which goniometric functions can be applied. However, it is proof that goniometric functions are necessary to describe a number of elementary physical phenomena.