

## **ABSTRACT**

This non-experimental diploma thesis is focused on nutrition in space and all aspects associated with it. The first part deals with human physiology in microgravity. These are changes affecting the musculoskeletal, cardiovascular, digestive, immune and central nervous systems, but also the consequences of long-term isolation, confined space and cosmic radiation in terms of the nutritional profile of space mission participants. The second part describes the spacefood system and maps the Soviet (later Russian) and American past, present and future in terms of the development of space nutrition and food. The third part focuses on the functioning of space medicine and dietetics, together with interesting projects and programs that have helped or continue to help improve space food systems. Thanks to these programs, the future settlement of the universe will become more realistic.

**keywords:** nutrition, nutrition in space, spacefood, cosmonaut, astronaut, space