Course catalogue

NUT_IIE_ZA04 Food processing and impact on nutritional quality of food

Programme	Nutrition
Level	Master's programme
Academic year Semester	I year Spring Semester
ECTS credits	9 credits
Lecturers	Ass. Prof. Daniela Nikolovska Nedelkoska, PhD Prof. Nastja Vasileva Ivanova, PhD
Language	Macedonian

Objective	The student will upgrade his knowledge about the principles of food preparation and preservation processes (thermal and nonthermal), as well as application of these principles to processes in food production; in order to ensure delivery of safe food products with optimal nutritional quality.
Content	Thermal preparation processes and effects of processing conditions on the quality and nutritional value of food. Trends in food preservation by thermal inactivation of enzymes and microorganisms. Trends in food preservation by heat removal (refrigeration and freezing); Controlled and modified atmosphere storage. Changes in food during freezing and frozen storage. Trends in food drying and dehydration. New techniques in the food preservation (ultrasound, high pressure, ohmic heating, electromagnetic radiation, etc.). Minimally processed food; an approach to minimal processing of fresh produce in order to preserve biologically active components in food. Application of enzymes/microorganisms in the modern food industry.
Learning materials	Primary literature and additional refrences are referenced in class and posted on the course website.