### Course Unit Descriptor

Study Programme: Food engineering and Biotechnology

Course Unit Title: Packaging and packing

Course Unit Code: KHO 406

Name of Lecturer(s): Associate Professor Senka Popović

Type and Level of Studies: Undergraduate Academic Studies

**Course Status (compulsory/elective):** Compulsory for study field (module) Food Preservation Technologies, Elective for study fields (modules) Carbohydrate Food Engineering and Food Biotechnology

Semester (winter/summer): summer

Language of instruction: English

Mode of course unit delivery (face-to-face/distance learning): Face-to-face

**Number of ECTS Allocated:** 6

Prerequisites: None

#### **Course Aims:**

The objective and task of educational work on the course is to form highly educated experts in the food industry, as well as in the production of packaging materials and packaging for food products, project, scientific, professional and pedagogical institutions dealing with this issue.

# **Learning Outcomes:**

The primary outcome of a course is the trained student for independent work on the application of the latest packaging materials and the process of packing for various food products. The student will be also able to work in the design and production of packaging materials and packaging for different food products.

Mastering the necessary knowledge and training of experts for professional, scientific and pedagogical work in the field of production technology and application of packaging materials and packaging.

#### **Syllabus:**

### Theory

Introduction to the basic characteristics of various packaging materials and packaging and their proper application in the process of packing of various food products. Introducing all the functions of the packaging, from the protective, storage-transport, to the ecological and informative function. The development path of the packaging from the traditional one of the most modern materials and shapes. Introduction to the basics of the production of packaging materials and packaging and engineering approach to the technological operations of the packaging forming process. Introduction to the basic processes and packing lines of different food products.

### Practice

Introduction with methods for determining dimensional, physical-mechanical, barrier and structural properties of packaging materials and packaging. Testing of metal, glass, paper, cardboard, polymer mono and multilayer packaging. Getting acquainted with biodegradable packaging.

# **Required Reading:**

- 1. Crnčević, V. Ambalaža za životne namirnice, Privredni pregled, Beograd, 1980.
- 2. Stričević, N. Suvremena ambalaža I i II, Školska knjiga, Zagreb, 1983.
- 3. Curaković, M., Vujković, I., Gvozdenović, J., Lazić, V. Kontrola ambalažnih materijala i ambalaže: практикум, Tehnološki fakultet, Novi Sad, 1992.

- 4. Vujković, I.Polimerna i kombinovana, Poli, Novi Sad, 1997.
- 5. Vujković, I., Galić, K., Vereš, M.: Ambalaža za pakiranje namirnica, Tectus, Zagreb, 2007.
- 6. Lazić, V., Novaković, D., Ambalaža i životna sredina, Tehnološki fakultet Novi Sad, Novi Sad, 2010.
- 7. Popović, S., Hromiš, N., Lazić, V., Kontrola kvaliteta ambalaže i pakovanja: praktikum sa radnom sveskom [Elektronski izvor], Tehnološki fakultet Novi Sad, Novi Sad, 2022.

Weekly Contact Hours: Lectures: 2 Practical work: 3

## **Teaching Methods:**

Interactive lectures using video presentation, laboratory work - independent or in small groups, practical work in industry, consultations.

# **Knowledge Assessment (maximum of 100 points):**

Pre-exam obligations	points	Final exam	points
Active class	5	written exam	
participation	<i>3</i>	written exam	
Practical work	25	oral exam	30
Preliminary exam(s)	40		
Seminar(s)			

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.