

SYLLABUS

REGARDING THE QUALIFICATION CYCLE FROM 2022 TO 2023

1. BASIC COURSE/MODULE INFORMATION

Course/Module title	Food storage and preservation
Course/Module code *	
Faculty (name of the unit offering the field of study)	College of Natural Sciences Institute of Food and Nutrition Technology
Name of the unit running the course	Institute of Food Technology and Human Nutrition
Field of study	Food technology and human nutrition
Qualification level	
Profile	General academic
Study mode	Part-time
Year and semester of studies	Winter semester
Course type	Erasmus + program
Language of instruction	English/Spanish
Coordinator	DR MAGDALENA BUNIEWSKA-OLEJNIK
Course instructor	DR MAGDALENA BUNIEWSKA-OLEJNIK

* - as agreed at the faculty

1.1. Learning format – number of hours and ECTS credits

Semester (no.)	Lectures	Classes	Colloquia	Lab classes	Seminars	Practical classes	Internships	others	ECTS credits
	15			15					5

1.2. Course delivery methods

- conducted in a traditional way

1.3. Course/Module assessment (exam)

EXAM

2. PREREQUISITES

BASIC KNOWLEDGE OF FOOD COMPOSITION, MICROBIAL SPOILAGE OF FOODS AND OTHER FOODS CHANGES

3. OBJECTIVES, LEARNING OUTCOMES, COURSE CONTENT, AND INSTRUCTIONAL METHODS

3.1. Course/Module objectives

O ₁	The goal of the course is to provide students with a definition and to clarify the causes spoilage of food and food raw materials
O ₂	The student will become familiar with conventional and non-conventional methods used for food preservation.
O ₃	Students will receive knowledge of abiotic and anabasis methods of food preservation, with emphasis on modern methods and procedures.

3.2. COURSE/MODULE LEARNING OUTCOMES (TO BE COMPLETED BY THE COORDINATOR)

Learning Outcome	The description of the learning outcome defined for the course/module	Relation to the degree programme outcomes
LO_01	Knowledge about the types of undesirable changes in the food, basic principles and methods of preserving existing of food	
LO_02	The ability to design technological process of extending the food preservation and appropriate manner to verify the result	
LO_03	Basic Knowledge of food composition, microbial spoilage of foods and other foods changes, students will understand that the principles can be used in food given to extend the keeping quality	

3.3. Course content (to be completed by the coordinator)

A. Lectures

Content outline
The principle and purpose of the preservation of food. Introduction to Food Storage
Mechanical changes in food
Biochemical changes in food
Developmental stages of storage and food processing
Characteristics of methods that are used for food preservation
The development and importance of preservation of food

B. laboratories,

Content outline
The basic conservation principles. Overview of conservation methods.
Microbial agents of decomposition of food and defence against them. Distribution of microorganisms according to physiological properties.
Sterilization, pasteurization.
Water bath canning, preserving with salt, sugar and honey Pressure canning; beverages, teas and drinks
Low-temperature food preservation: cooling, freezing. Modifying the storage atmosphere.
Oxidative changes in foods, spontaneous oxidation factors, redox processes in food.

3.4. Methods of Instruction

Lecture: a lecture supported by a multimedia presentation

Laboratory classes: designing and conducting experiments

4. Assessment techniques and criteria

4.1 Methods of evaluating learning outcomes

Learning outcome	Methods of assessment of learning outcomes (e.g. test, oral exam, written exam, project, report, observation during classes)	Learning format (lectures, classes,...)
LO-01	test	LECTURES, LAB
LO-02	reports	LAB
LO-03	observation during classes	LAB

4.2 Course assessment criteria

ATTENDANCE IN ALL LABORATORY CLASSES. REPORTING AND PRESENTING RESULTS OF PRACTICAL AND LABORATORY EXERCISES. PASS THE LABORATORY MATERIAL TESTS AND FINAL EXAM (OPEN TEST)
GRADE 5, > 94%; GRADE 4.5, 90-94%; GRADE 4, 80-89%; GRADE 3.5, 70-79%; GRADE 3, 60-69%
CORRECT ANSWERS

5. Total student workload needed to achieve the intended learning outcomes – number of hours and ECTS credits

Activity	Number of hours
Scheduled course contact hours	65
Other contact hours involving the teacher (consultation hours, examinations)	10

Non-contact hours - student's own work (preparation for classes or examinations, projects, etc.)	50
Total number of hours	125
Total number of ECTS credits	5

* One ECTS point corresponds to 25-30 hours of total student workload

6. Internships related to the course/module

Number of hours	
Internship regulations and procedures	

7. Instructional materials

<p>Compulsory literature: MARCUS KAREL, OWEN R. FENNEMA, DARYL B. LUND: PHYSICAL PRINCIPLES OF FOOD PRESERVATION. NEW YORK, BASEL DEKKER, 1975. DESROSIER NORMAN W: THE TECHNOLOGY OF FOOD PRESERVATION, AVI PUB. Co.</p>
<p>Complementary literature: NORMAN N. POTTER, JOSEPH H. HOTCHKISS: FOOD SCIENCE, 5TH ED. NEW YORK : CHAPMAN & HALL</p>

Approved by the Head of the Department or an authorised person