MODUL	FOOD 2W.4	COURSE TITLE	Antioxidants in food	ECTS
FACULTY COORDINATOR	prof.dr hab. Z.Krejpcio	DEPARTMENT	ND FOOD ANALYSIS / DEPARTMENT O	
TEACHER		DR KRZYSZTOF DWIECKI / DR HAB. ANNA GRAMZA-MICHA		

VOLUME (H)	15	PERSONAL WORK (H)	3

LECTURE (H)	LAB (H)	PLACEMENT (H)	PROJECT (H)	OTHER MOD
15	0	0	0	5

EVALUATION		TEACHING METHODS
EVALUATION MODALITES		Multimedial lectures
ORAL INDIVIDUAL REPORT		Laboratory team exercises
WRITEN INDYVIDUAL REPORT		Oral reports on laboratory exercises with group discussion
FINAL ORAL EXAM		
FINAL WRITTEN EXAM	100%	
COMMENTS OF EVALUATION		

SEMESTER (WINTER/SUMMER)	LANGUAGE
WINTER	ENGLISH

OBJECTIVES

This course will provide an introduction to the fundamentals of free radicals, oxidation process and antioxidants

At the and of the course studens will be able to: understand the basic role of food antioxidants, recognise techn

CONTENTS

1. Natural and synthetic antioxidants. Occurrence in food raw materials and food products. Changes in antioxida processing (thermal and non-thermal processing). Interactions of antioxidants in food
2. Bioavailability of natural antioxidants. Antioxidants in human organism. The health benefits of antioxidants
3. Methods of antioxidants content determination (preparation of sample, extraction, spectroscopic methods, chromatography methods NP-HPLC, RP-HPLC). Methods of antioxidant potential analysis
4. Antioxidants in lipid membranes. Developing antioxidant (phytochemicals) functional products

PRE-REQUISES	BASIC FOOD CHEMISTRY, BIOCHEMISTRY; PHYSICS

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