

ADVANCED APPLICATIONS OF FOOD SAFETY SYSTEM PRINCIPLES

STRUCTURE

Study program	Food Safety and Biosecurity
Study year	I
Semester	I
Subject type	DA
Total number of hours per week	Course – 2 hours; PA - 2 hours
Total number of hours according to curriculum	Course – 28 hours; PA - 28 hours
Number of transferable credits	8

Subject objectives

Students to understand the importance of food quality and safety systems; to achieve the ability and knowledge to handle food safety projects in dairy, meat, bread, and fermented foods. Acquiring fundamental theoretical concepts on food safety systems; acquiring technical knowledge for identifying food safety problems and giving solutions.

Subject content

COURS	Nr. ore
Chapter 1. Food safety – introduction; history of food safety; challenges of 21 st century	2
Chapter 2. Overview of food quality and food safety: scope of food quality and food safety; responsibility for food quality and food safety; the distinction between food quality and food safety; food safety as part of food quality; food quality; systems and programs for food quality; food safety; systems and programs for food safety; food laws and regulations; enforcement of food laws and regulations	2
Chapter 3. Food Safety Concept: The Concept of Food Safety and its Definitions; Elements of Food Safety Management	2
Chapter 4. Quality programs and quality systems for the food industry; Quality control programs; Quality assurance systems; Quality management systems; Total quality management. The ISO 9000 quality system standards.	4
Chapter 5. GMPs and HACCP prerequisite programs: GMPs and government regulations; GMPs as a business practice in the food industry; GMPs and HACCP prerequisite programs; Activities covered by GMPs and HACCP prerequisite programs	4
Chapter 6. Hazard analysis critical control points HACCP	2
Chapter 7. ISO 22000: Terms & Definitions; Food Safety Management System; Management Responsibility; Resource Management; Planning & Realization of Safe Products	2
Chapter 8. Crisis management	2
Chapter 9. Incident management and root cause analysis	4
Chapter 10. Food Safety and Sustainability	2
Chapter 11. Ethics in food safety management	2

PRACTICAL ACTIVITIES	Nr. ore
Chapter 1. Introduction. History of food safety	2
Chapter 2. HACCP. Case study ice cream	2
Chapter 3. HACCP. Case study cheesecake	2
Chapter 4. Food Hygiene Issues in Primary Production	2
Chapter 5. Personal Hygiene in Food	2
Chapter 6. Design and facilities. Sanitation	2
Chapter 7. The concept of quality applied to fresh fruits and vegetables	2
Chapter 8. Maintaining the quality and safety of fruits & vegetables post-harvest	2

Chapter 9. Importance of safety in fresh food & vegetables	2
Chapter 10. GAP for fresh fruits and vegetables	2
Chapter 11. GMP_for fresh fruits and vegetables	2
Chapter 12. Standard Operating Procedures for Fresh Fruits & Vegetables	2
Chapter 13. Contamination hazards in fresh fruits & vegetables	2
Chapter 14. Importance of certification in fresh fruits & vegetables	2

BIBLIOGRAPHY

1. Alpas Hami, 2010. Food Chain Security, Springer Publishing, ISBN 978-90-481-9558-9 (e-book)
2. Brown M. 2000. HACCP in the meat industry, Woodhead Publishing Limited
3. Lelieveld H. L. M., Mostert M. A., Holah J. 2005. Handbook of hygiene control in the food industry, Woodhead Publishing Limited ISBN-13: 978-1-85573-957-4 (book)
4. McElhatton Anna, Marshall Richard J. 2010. Food Safety. A Practical and Case Study Approach, Springer Science + Business Media, LLC
5. Theuvsen L., Spiller A., Peupert M., Jahn G., 2007. Quality management in food chains, Wageningen Academic Publishers, The Netherlands, e-ISBN: 978-90-8686-605-2

EVALUATION

Type of activity	Evaluation criteria	Evaluation methods	Percent in final grade %
Course	Correctness and level of knowledge, logical coherence, degree of assimilation of specialized language, conscientiousness, and interest in individual study.	Oral evaluation	50%
		Active participation in courses	10%
PA	The ability to apply theoretical knowledge in practice, the ability to solve practical situations encountered; conscientiousness, individual study	Current written works: assignments, projects	30%
		Active participation in practical activities	10%
Other activities	Active participation in study visits organized; interest in understanding the practical knowledge		

Course coordinator: Associate Professor Ph.D. Gratzuela Victoria BAHACIU

Practical activities coordinator: Associate Professor Ph.D. Gratzuela Victoria BAHACIU