

**ADDITIONAL PRODUCTS USED IN TECHNOLOGICAL PROCESSES IN THE FOOD INDUSTRY**

**STRUCTURE**

<b>Study program</b>	<b>Food safety and biosecurity</b>
<b>Year of study</b>	I
<b>Semester</b>	II
<b>Discipline category</b>	DA
<b>Total hours per week</b>	Course - 2 hours; S - 1 hour
<b>Total number of hours per year according to the curriculum</b>	Course - 28 hours; S - 14 hour
<b>Number of transferable credits</b>	7

**MAIN OBJECTIVE**

Diversification and deepening the theoretical and practical knowledge concerning the added additives and ingredients to foods

**CONTENTS**

<b>COURSE</b>	<b>No. hours</b>
Chapter I - General principles for the use of additional products I.1. Conditions for using the food additives and ingredients I.2. Classification of additional products I.3. Global and national legislation concerning the use of additional products in technological processes in the food industry	4
Chapter II - Food additives approved by Romanian and European Union legislation II.1. Food colouring II.2. Antiseptic and stabilizers substances (preservatives) II.3. Antioxidants II.4. Substances with sequestration, stabilization, buffering, strengthening and synergistic action II.5. Emulsifiers II.6. Hydrocolloids II.7. Flavourings and flavour enhancers II.8. Sweeteners II.9. Substances forming a foam, stabilizing the foam II.10. Substances for fixing the color of meat II.11. Raising substances II.12. Substances for clarification and stabilization II.13. Substances for surface treatment	10
Chapter III - Derived protein used in the food industry	6
Chapter IV - Dietary fiber	2
Chapter V - Substances for lowering the water activity	1
Chapter VI - Enzyme preparations using in food	5

<b>Practical activity</b>	<b>No. hours</b>
Chapter I - Research methods of additives and ingredients for use in food	2
Chapter II - Harvesting and preparation of samples for the execution of chemical analysis	2
Chapter III - Methods for determination of food additives	5
Chapter IV - Determination of dietary fiber	2
Chapter V - Methods for enzyme preparations processing	3

## BIBLIOGRAPHY

1. Marin Monica, 2017. Additional products used in food industry, Ed. AgroTehnica, București.
2. <https://www.efsa.europa.eu/en/topics/topic/food-additives>
3. [https://ec.europa.eu/food/safety/food-improvement-agents/additives/eu-rules\\_en](https://ec.europa.eu/food/safety/food-improvement-agents/additives/eu-rules_en)
4. <https://www.eufic.org/en/whats-in-food/article/food-additives>
5. [https://www.fsai.ie/legislation/food\\_legislation/food\\_additives/food\\_additives\\_legislation.html](https://www.fsai.ie/legislation/food_legislation/food_additives/food_additives_legislation.html)

## EVALUATION

Type of activity	Evaluation criteria	Evaluation methods	Percent in final grade %
Course	Assimilation of information presented Ability to use the assimilated knowledge	Summative evaluation by exam	60%
Seminar	Ability to apply the learned knowledge in practice	Continuous evaluation by oral and practical methods Development report	40%

**Courses coordinator: Prof. Ph.D. MARIN Monica Paula**

**Practical activity coordinator: Prof. Ph.D. MARIN Monica Paula**