

ADVANCES IN FOOD BIOTECHNOLOGY

STRUCTURA

Programul de studii	MASTER_Biotechnology and Entrepreneurship
<i>Anul de studii</i>	I
<i>Semestrul</i>	2
<i>Regimul disciplinei</i>	DOA
<i>Numărul total de ore pe săptămână</i>	Curs – 2 ore; L/S/P- 2 ore
<i>Numărul total de ore conform planului de învățământ</i>	Curs – 28 ore; L/S/P- 28 ore
<i>Numărul de credite transferabile</i>	8 ECTS

OBIECTIVELE DISCIPLINEI

This subject aims at provides the student with a clear panoramic view of the sector. The content of this first subject is designed to establish a solid knowledge, partially learnt in previous university degrees in some cases, on which the food industry and biotechnology are based. In parallel, the subject seeks to provide self-assurance in the use of appropriate terminology. Thus, the fundamental concepts and the specificity of the sector will be reinforced. The new processes and functional food will be justified, stressing the quality indicator, food safety and environmental impact.

The aim is that students deepen their knowledge of functional foods regarding their preparation, legal requirements, properties.

The course contents are grouped around types of functional foods, stressing the ingredients/compounds with beneficial activities, possible interactions with others components, effects on physico-chemical and sensorial properties.

CONȚINUTUL DISCIPLINEI*

CURS	Nr. ore
Chapter 1. Basic principles of food and bio products process technology.	4
Chapter 2. Introduction, Definition and Concept of functional ingredients and food.	4
Chapter 3. Sources of compounds with functional activity.	6
Chapter 4. Types of functional foods.	8
Chapter 5. Commercialization of functional foods and legal requirements.	6

**Se vor specifica pe scurt conținutul disciplinei la curs și Lucrări practice L/S/P (denumire capitol și conținut capitol)*

LUCRĂRI PRACTICE L/S/P	Nr. ore
Laboratory works for antimicrobial and antioxidant activity determinations	16
Project type: design of new functional ingredient/food	12

BIBLIOGRAFIE

1. Ravishankar Rai V, Advances in Food Biotechnology, Ed.Wiley-Blackwell, 2015
2. Brennan, J.G. Food processing handbook. Weinheim: Ed. Wiley-VCH, 2006. ISBN 3527307192.
3. Brennan, J.G; Grandison, Alistair S. Food processing handbook [Recurs electronic] [on line]. 2nd ed. Weinheim, Germany: Ed.Wiley-VCH, 2012 Available on: <<http://onlinelibrary.wiley.com/book/10.1002/9783527634361>>. ISBN 9783527634361.
4. Jim Smith (Editor), Edward Charter (Editor). Functional Food Product Development, ISBN: 978-1-4051-7876-1, June 2010, Ed.Wiley – Blackwell.
5. Farah Hosseinian, Dave Oomah, Rocio Campos – Vega, Dietary Fibre Functionality in Food & Nutraceuticals: From Plant to Gut, ISBN: 978-1-119-13805-1, March 2017, Ed.Wiley-Blackwell.

EVALUARE

Tip de activitate	Criterii de evaluare	Metode de evaluare	Pondere din nota finală %
Curs	The main evaluation criteria are based on the student having demonstrated that he or she has acquired a satisfactory knowledge of the subject matter, as well as having developed an adequate level of related skills. All of this is marked out of 10 points, as is standard practice in the Romanian educational system.	Exam based on examination grid	60
L/P/S	The evaluation of “practical work” is based on continuous assessment of the student's work during the development of the practical credits. In addition, the work of interpreting that data and its discussion, which will be evident from the corresponding report and its presentation in a seminar, will also be marked. The Demonstrating research skills for the identification, interpretation and, in necessary, the application of information, will be evaluated through the preparation of a bibliographic work, as mentioned above. All of this is marked out of 10 points, as is standard practice in the Romanian educational system.	Presentation of the project in a dedicated seminar	40

Titularul activităților de curs: Prof. dr. Mona Elena Popa

Titularul activităților de lucrări practice L/S/P: Prof. dr. Mona Elena Popa