Bachelor programme in Food Technology

Reference : **1033204**

Year: **2017-18**

CURRICULAR UNIT
FOOD SAFETY

1. Characterization

1.1 - Scientific area: 541

1.2 - Type (duration): Semestral

1.3 - Curricular year /Semester: 3º A / 6º S

1.4 – Working hours:

Contact hours								Projects	Fieldwork	Study	Totals
T	TP	P	S	E	OT	Evaluation	Total				
	28,0				4,0	2,0	34,0		26,0	20,0	80,0

1.5 - ECTS: 3

1.6 - Responsible lecturer

João Freire de Noronha

1.7 - Other lecturers

2. Learning outcomes

The safe production and distribution of food is one of the major concerns of consumers, food industry and National and European authorities. It is of paramount importance for a Food Technologist to understand and use correctly the available tools available for safe food production.

In this curricular unit the requisites for the production of safe foods are discussed. A special focus is given to law requirements and the correct implementation of HACCP (Hazard analysis and Critical Control Points) methodology.

On successful completion of this curricular unit the student knows the legal framework regarding safe food production and will implement an HACCP system as part of a team.

3. Syllabus

Module 1

Food quality, food hygiene and food safety

Food hazards – Biological, physical and chemical

Food legislation – Portuguese and European Union

Good Hygiene and Manufacturing Practices: Facilities, personal hygiene, Cleaning and disinfection, Pest control

Module 2

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HACCP – History, principles and implementation

Development of an HACCP plan.

4. Demonstration of the syllabus coherence with the curricular unit's objectives

Syllabus allows the curricular unit's learning outcomes to be met in a sequential and logic way. Starting with some fundamental concepts of food hygiene, quality and safety, food hazards and legal framework followed by a discussion of good manufacturing and hygiene practices as prerequisites to HACCP implementation. HACCP implementation as a means to guarantee food safety is put forward in the end.

5. Teaching and evaluation metodologies

5.1 – Teaching metodologies

Participatory lectures, individual assignments, team assignments, development of an HACCP plan for the product/process developed in the Project Curricular unit.

5.2 – Evaluation methodologies

Continuous evaluation

Evaluation: Mid-term examinations, marking of individual and team assignments,

Module 1. Written test (60%), individual and group assignments (40%)

Module 2 Writtent test (50%), Group assingment (50%)

Final grade = Average (Module1, Module 2)

Final exam evaluation

Written examination

6. Demonstration of the teaching metodologies coherence with the curricular unit's learning outcomes

Lectures allow the introduction of new concepts and basic information. Individual and team assignments allow the development of information retrieval and synthesis skills fundamental in an area in constant evolution.

The implementation of HACCP in the food industry should be carried out by a multidisciplinary team it is coherent that an assignment related to develop an HACCP plan should be carries by a team of students.

7. Bibliography

7.1 – Basic bibliography

BAPTISTA, P. e SARAIVA, J. 2003. Higiene Pessoal na Indústria Alimentar. Guimarães: Forvisão.

NORONHA, J. e BAPTISTA, P., 2003. Segurança Alimentar em Estabelecimentos Agro- Alimentares: Projecto e Construção. Guimarães: Forvisão

NORONHA, J.F. [et al.] Boas práticas de fabrico em queijarias tradicionais. Coimbra Escola Superior Agrária de Coimbra. 2006 ISBN 972-99205-1-6

BAPTISTA, P., 2003. Higienização de Equipamentos e Instalações na Indústria Alimentar. Guimarãeas: Forvisão.

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BAPTISTA, P., NORONHA, J., OLIVEIRA, J e SARAIVA, J., 2003. Sistemas Genéricos de HACCP. Guimarães: Forvisão.

REGULAMENTO (CE) 178/2002 de 28 de Janeiro de 2002 que determina os princípios e normas gerais da legislação alimentar

REGULAMENTO (CE) 852/2004 de 29 de Abril de 2004 relativo à higiene dos géneros alimentícios

REGULAMENTO (CE) 853/2004 de 29 de Abril de 2004 que estabelece regras específicas de higiene aplicáveis aos géneros alimentícios de origem animal

7.2 – Complementary bibliography

PIERSON, M.D. (Ed.) - HACCP: principles and applications. New York, EUA: Chapman and Hall, 1992

MORTIMORE S. e WALLACE C. - HACCP: a practical approach. 2nd ed. London, R.U.: A Chapman & Hall Food Science Book, 1998.

PEARSON, A. M. (Ed.) – HACCP in meat, poultry and fish processing. London: Blackie Academic & Professional. 1995.

SHAPTON., D.A. Safe processing of foods: principles and practices. Oxford: Butterworth-Heinemann, 1991

ASQ Food, Drug & Cosmetics Division – HACCP – Manual del auditor de calidad. Zaragoça, Espanha: Editorial ACRIBIA, S.A., 2003.

MOLL, M e MOLL, N. – Compendio de riesgos alimentarios. Zaragoça, Espanha: Editorial ACRIBIA, S.A., 2006.

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(O Responsável pelos Serviços Académicos)

ESAC, ___ /___ /_____

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