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INSTITUTO POLITÉCNICO DE BRAGANÇA

Course Unit	Control and Food Quality Certification			Field of study	Food Industries	
Bachelor in	Dietetics and Nutrition			School	School of Health	
Academic Year	2021/2022	Year of study	3	Level	1-3	ECTS credits 5.0
Type	Semestral	Semester	1	Code	8149-501-3102-00-21	

Workload (hours)	135	Contact hours	T -	TP 30	PL -	TC 15	S -	E -	OT 15	O -

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s)	Ana Maria Geraldes Rodrigues Pereira

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. To know the evolution of quality concept and food quality concept;
2. Understand a group of norms that establish the needed requisites to assure quality;
3. To Distinguish between accreditation and certification. Procedures and envolved entities for implementation at a national and international level
4. To know the mechanisms needed for a quality management system implementation;
5. To implement Quality Managment and Food Safety Systems;
6. To know the interrelationship between the most important references normative for quality and food certification;
7. To know the statistical tools of Quality Control;
8. Understand the europeian and national legislation related with food quality control and safety.

Prerequisites

Not applicable

Course contents

Concept of Quality and its evolution. Normative references. Management Quality System implementation. Quality Control tools. National and European legislation in quality control and food safty. Introduction to the problem of authenticity of foodstuffs. Some analytical methodologies applied to Quality Control process of some foodstuffs.

Course contents (extended version)

1. Evolution of quality concept: inspection, control, guaranty and total quality management.
2. Certification and Acreditation: concepts.
3. Implementation of a quality management system (NP EN ISO 9001: 2015).
    - The different norms of the ISO 9000 series.
    - Quality principles, vocabulary, norm requisites and the implementation process.
4. The Portuguese Quality Institute (Subsystems: Qualification, Metrology and Normalization).
5. Quality costs.
6. Food safety: European legislation.
    - Food security policy in the European Community: The white paper.
    - Regulation 178/2002: objectives, scope and principles.
    - Other regulations and National Legislation.
    - New Foods and GMOs.
    - Discussion on the recent food crises in Europe.
    - Nutritional Security: supplements, Fortification and Nutrition Claims.
    - Chemical and microbiological safety. New parameters.
    - Labelling.
    - Animal Nutrition.
    - Products Traceability.
7. Food safety managment:
    - Principal references of food certification and their comparison:
    - Codex Alimentarius
    - ISO 22000
    - DS 3027E
    - ERS 3002
    - Other references: BRC Food, BRC/IOP, IFS, FSSC 22000, MSC, GlobalGap.
8. Food product certification systems
    - Protected Designation of Origin (PDO).
    - Protected Geographical Indication (PGI).
    - Traditional Specialities Guaranteed (TSG).
    - Organic Farming.
    - Integrated Prodution.
    - Certification process and certifying Bodies in Portugal.
    - Quality characteristics of products evaluated in these processes

Recommended reading

1. Pires, A. , R. (2007). Qualidade: Sistemas de Gestão da Qualidade. 3ª Edição. Editora Sílabo Ltd: Lisboa, .
2. Teixeira, A. , António, N. S. (2007). Gestão da qualidade: de Deming ao modelo de excelência da EFQM. 1ª Edição. Editora Sílabo: Lisboa.
3. Fernandes, E. , Silva, M. F. , Ramalhosa, E. (2012). Sistemas de Gestão da Segurança Alimentar. 1º Edição. Editora Sílabo: Lisboa.
4. NORMAS ISO para a Segurança Alimentar (9001; 22000; 14000; 18000), Codex alimentarius (norma de Higiene dos alimentos e normas específicas),
5. European Commission (2018). The Rapid Alert System for Food and Feed (RASFF) - Annual Report 2018.

Teaching and learning methods

The theoretical lessons will use the expository method; Tutorial training lessons using active and interactive method to do practical exercises. Developing, presentation and discussion of a group work; Field work for application of the theoretical contents and developed documents in tutorial lessons.

Assessment methods

1. Alternative 1 - (Regular, Student Worker) (Final)

Assessment methods

  - Final Written Exam - 60% (Minimal classification required, according to the Pedagogical Regulation- ESSa- IPB(8, 5 values))
  - Reports and Guides - 40%
2. Alternative 2 - (Regular, Student Worker) (Supplementary, Special)
  - Final Written Exam - 100%

Language of instruction

Portuguese

Electronic validation

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11-11-2021	15-11-2021	17-11-2021	17-11-2021