



# Definition of the educational dossiers and contents for the 6 training courses

WP 2 – Development of Training courses

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## 1 Introduction

Workpackage 2 (WP2) deals with the development of training activities and materials to enhance training capabilities and knowledge of Jordan Universities and industries staff. It includes the implementation, development and validation of 6 training courses held in EU partner institutions, the design, development and validation of 3 e-learning courses and their setting in the FOODQA e-learning platform. Main focus of the training activities and materials is food safety and quality management.

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The Deliverable D2.1. deals with the development of pedagogical (educational dossier/Syllabus) of the following courses

1. Food safety hazards (estimated time: 16 h)
2. Food safety management systems (estimated time: 32 hours)
3. Personnel Hygiene (estimated time: 4 h)
4. Design and construction of food premises ((estimated time: 16 h)
5. Cleaning and disinfection (estimated time: 16 h)
6. Pest control (estimated time: 16 h)
7. Quality management systems (estimated time: 32 h)
8. Quality management tools (estimated time: 40 h).

## 2 Strategy

The FOODQA partners discussed at the kick-off meeting of the project (Feb 2016) the role of the EU partners on the implementation of the training courses for the Jordan partners staff based on the specific expertise of his/her institution. A survey was conducted among the food industries companies in Jordan in order to prepare this capacity building plan. The results of the survey identified the needed training and workshops for the staff working in the food industry in Jordan. The needed training identified in this study was in agreement of the proposed training workshops and courses in the original proposal. In the following months the WP2 coordinator sent a syllabus form to the selected partners to be filled in for each of the 8 topics/trainings indicated in the project, containing the following titles:

- Organiser
- Target group

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- Learning outcomes
- Minimum knowledge pre-requisites (if any)
- Contents
- Teaching materials available/to be prepared
- Evaluation type

In the section, the syllabus/educational dossier of the 8 training modules.

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## 2.1 Food safety Hazards

**Teaching/contact time: 16 hours**

**REFERENCE PARTNER INSTITUTION: UniTE (Italy), P8**

### 1. Target group:

- Practitioners of the food chain sector
- Experienced professionals
- Undergraduates
- Master degree students, PhD

### 2. Learning outcomes:

Trainees will:

- develop knowledge and understanding of the significant biological, physical and chemical hazards associated with foods and food processing and the available tools for their control.
- implement knowledge on new food safety hazards in food formulation and processing (nutritional and novel foods).
- enhance a critical mindset to analyze food processing and to apply preventive methods minimize risk with specific focus on microbiological hazards.

### 3. Minimum knowledge pre-requisites (if any)

- Basic concepts of food processing and preservation, including factors (product, environmental) that affect food degradation (microbial, enzymatic, chemical)

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- Basics in food microbiology.

#### 4. Contents

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	Sub-topic	Contents and/or keywords	Teaching material to be prepared *	Partner institution	reference person (availability)
1	Food safety: definition and aspects		Ebook/ppt-elearning ebook	UniTE	Antonello Paparella, Annalisa Serio, Clemencia Chaves
2	Definition of food safety hazards	<i>To be completed</i>			
3	<i>Microbiological and biological hazards</i>	<i>To be completed</i>			
4	<i>Chemical hazards</i>	<i>To be completed</i>		UNITE	Dario Compagnone
5	<i>Physical and mechanical hazards</i>	<i>To be completed</i>			Paola Pittia
6	<i>Nutritional and health hazards</i>	<i>To be completed</i>			Paola Pittia
7	Biotechnology/novel foods	<i>To be completed</i>			Enrico Dainese
8	Food Safety Regulations	<i>To be completed</i>			Pierina Visciano

The training course will be complemented by:

- a visit in the microbiology and analytical chemistry labs of the University of Teramo
- a visit at the Istituto Zooprofilattico Sperimentale dell’Abruzzo e Molise  
<http://www.izs.it/IZS/Engine/RAServePG.php/P/250010010603/L/1>, could be planned depending on time availability.

#### 5. Teaching material available/to be prepared (e.g. ppt presentations, case studies, videos, ...)

\*: for some topics/subtopics e-books, posters and videos are already under preparation (WP1).

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	Sub-topic	Teaching material available (see WP1)*	Teaching material to be prepared	Partner institution	reference person (availability)
1	Food safety: definition and aspects	e-book	PPT / e-learning	E-book: UNITE+ JUST +UJ+AUA+MUTAH	See above
2	Definition of food safety hazards				
3	<i>Microbiological and biological hazards</i>				
4	<i>Chemical hazards</i>				
5	<i>Physical and mechanical hazards</i>				
6	<i>Nutritional and health hazards</i>				
7	Biotechnology/novel foods				
8	Food Safety Regulations				

**6. Evaluation: self-evaluation**

4 questions for each subtopic should be collected.

**2.2 Cleaning and disinfection**

Teaching/contact time: 16 h

REFERENCE PARTNER INSTITUTION: UniTE (Italy), P8

**1. Target group:**

- Practitioners of the food chain sector
- Experienced professionals
- Undergraduates
- Master degree students, PhD



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## 2. Learning outcomes:

Trainees will:

- understand the need for cleaning and disinfecting systems.
- achieve knowledge about the main cleaning and disinfection tools and their application in the food production chain.

## 3. Minimum knowledge pre-requisites (if any)

- Basic knowledge and concepts of food processing and preservation

## 4. Contents

	Sub-topic	Contents and/or keywords	Teaching material to be prepared *	Partner institution	reference person (availability)
1	Sanitisation: introduction	<i>To be completed</i>	E-book/ppt of the teacher	UNITE	Antonello Paparella, Annalisa Serio, Clemencia Chaves
2	Cleaning and cleaning agents	<i>To be completed</i>			
3	Disinfection:Introduction;agents and methods	<i>To be completed</i>			
4	Cleaning and disinfection equipment	<i>To be completed</i>			
5	Sanitation methodology and documentation	<i>To be completed</i>			

## 5. Teaching material available/to be prepared (e.g. ppt presentations, case studies, videos, ...)

\*: for some topics/subtopics e-books, posters and videos are already under preparation (WP1).

	Sub-topic	Teaching material available (see also WP1)*	Teaching material to be prepared	Partner institution	reference person (availability)
1	Sanitisation: introduction	e-book/ppt of the teacher/	PPT / e-learning	UNITE	See above
2	Cleaning and cleaning agents				
3	Disinfection:Introduction;agents and methods				

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4	Cleaning and disinfection equipment	additional documents			
5	Sanitation methodology and documentation				

## 6. Evaluation: self-evaluation

4 questions for each subtopic should be collected.

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## 2.3 Food Safety Management System

Teaching/contact time: 32 hours

**REFERENCE PARTNER INSTITUTION:** Paulo & Beatriz – Consultores Associados, Lda (Portugal), P12

### 1. Target group:

Staff from Jordanian universities with knowledge / activities related to food and food safety issues, namely food safety

### 2. Learning outcomes:

Trainees will:

- improve the knowledge in international recognized standards of food safety
- Enhance their capability to understand standards requirements and to relate it with the operations in food companies
- Recognise the relevance of the standards requirements and how this might/can be implemented
- Develop their capability, by integration of knowledge, to be able to teach this subjects in Jordan.

### 3. Minimum knowledge pre-requisites

Minimum requirements: i) Knowledge in food safety principles; ii) Knowledge in HACCP – Hazard Analysis and Critical Control Points; iii)

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Preferential requirements: i) Bachelor Degree or Master Degree in food related areas; ii) knowledge in quality and/or food safety management systems (such us: ISO 9001, ISO 22000, IFS, BRC, ...).

#### 4. Contents

(take as reference the contents already defined for the teaching materials)

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	Sub-topic	Contents and/or keywords	Teaching material to be prepared *	Partner institution	reference person (availability)
1	The HACCP System	1.1. INTRODUCTION 1.2. THE CONCEPT OF THE HACCP SYSTEM 1.3. THE HISTORY OF THE HACCP SYSTEM 1.4. THE PRINCIPLES OF THE HACCP 1.5. THE HACCP METHODOLOGY 1.5.1. HACCP TEAM 1.5.2. PRODUCT DESCRIPTION 1.5.3. INTENDED USE FOR THE PRODUCT 1.5.4. CONSTRUCTION OF THE FLUXOGRAM 1.5.5. VERIFICATION OF THE FLUXOGRAM 1.5.6. HAZARD ANALYSIS 1.5.7. DETERMINATION OF CRITICAL CONTROL POINTS 1.5.8. ESTABLISHMENT OF CRITICAL LIMITS 1.5.9. ESTABLISHMENT OF MONITORING SYSTEM 1.5.10. ESTABLISHMENT OF CORRECTIVE ACTIONS	---	Paulo & Beatriz, Lda (P&B)	Paulo Baptista

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		1.5.11. ESTABLISHMENT OF VERIFICATION PROCEDURES 1.5.12. DOCUMENTS AND REGISTERS			
2	<b>Food Safety Standards for Certification</b>	2.1. INTRODUCTION 2.2. REQUIREMENTS OF FOOD SAFETY STANDARDS 2.2.1. BRC FOOD 2.2.1.1. SENIOR MANAGEMENT COMMITMENT 2.2.1.2. THE FOOD SAFETY PLAN – HACCP 2.2.1.3. FOOD SAFETY AND QUALITY MANAGEMENT SYSTEM 2.2.1.4. SITE STANDARDS 2.2.1.5. PRODUCT CONTROL 2.2.1.6. PROCESS CONTROL 2.2.1.7. PERSONNEL 2.2.2. IFS FOOD 2.2.2.1. SENIOR MANAGEMENT RESPONSIBILITY 2.2.2.2. QUALITY AND FOOD SAFETY MANAGEMENT SYSTEM 2.2.2.3. RESOURCE MANAGEMENT 2.2.2.4. PLANNING AND PRODUCTION PROCESS 2.2.2.5. MEASUREMENT, ANALYSIS, IMPROVEMENT 2.2.2.6. FOOD DEFENSE AND EXTERNAL INSPECTIONS	---	Paulo & Beatriz, Lda (P&B)	Paulo Baptista

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		2.2.3. COMPARISON BETWEEN BRC AND IFS STANDARDS			
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**5. Teaching material available/to be prepared** (e.g. ppt presentations, case studies, videos, ...)

\*: for some topics/subtopics e-books, posters and videos are already under preparation (WP1).

	Sub-topic	Teaching material available (see WP1)*	Teaching material to be prepared	Partner institution	reference person (availability)
1	<b>The HACCP System</b>	Food Safety Management Systems -ebook	---	Paulo & Beatriz, Lda (P&B)	Paulo Baptista
2	<b>Food Safety Standards for Certification</b>	Food Safety Management Systems -ebook	---	Paulo & Beatriz, Lda (P&B)	Paulo Baptista

**6. Evaluation: self-evaluation**

Evaluation will be based:

- A) In a multiple choice questionnaire (20 questions) will be used for self-evaluation by the participants.
- B) In 10 short case-studies for identification the deviations concerning standards requirements and grading of the non-conformities.

## 2.4 Pest Control

Teaching/contact time: 12 hours /2018

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REFERENCE PARTNER INSTITUTION: UNIST (Croatia) P9 + BAU and JU

### **1. Target group:**

- Undergraduates in Nutrition and Food science, commercial food service worker but would also benefit anyone interested in pest control.

### **2. Course objectives:**

After finishing course attendants will learn how to ensuring that premises have good hygiene practice including pest control as one of the main prerequisite programs that precede the implementation of any other food safety system, also the concept and importance of pest control in food industry, pest control measures in food industry, the most important species and the effects of certain pests in food industry, as well as application of integrated pest management program in food industry.

### **3. Learning outcomes:**

- Understand the IPM decision-making process and how it differs from conventional pest control.
- Learn how to use the IPM decision-making process when delivering professional structural pest control services.
- Understand how pest biology and behavior affects the success of management practices.
- Develop/increase skills in monitoring, record-keeping, setting treatment thresholds, using non-chemical prevention and treatment methods, using reduced-risk pesticides as a last resort, and developing customer cooperation with the IPM service.

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- Learn how to incorporate IPM concepts and methods into a structural pest control business.

#### 4. Minimum knowledge pre-requisites (if any)

An introductory course in entomology.

#### 5. Course description:

This 12-hour course provides an understanding of the food pests and how to control them. Learn how to identify, and know the basic life history, habitat and damage of structural pests, to determine a method of control, and if that method of control involves the use of pesticides, to ensure that pesticides are used safely and effectively. How to integrate program of control and pest management in food industry, Inspection and auditing of food premises, and especially method of pest prevention.

#### 6. Contents

	Sub-topic	Contents and/or keywords	Teaching material to be prepared *	Partner institution	reference person (availability)
1	Introduction	The concept and importance of pest control in food proces; Food safety; regulations	E-book PPT Video, Posters	BAU-SPLIT	
2	Integrated program of control and pest	Reason for pest control; Pest control strategies-	E-book	BAU-SPLIT	

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<b>management in food industry</b>	preventative measures; rodent control (reasons for pest control strategies-preventive measure; rodent control; insect control; bird control; detection and monitoring of pests).	PPT Video, Posters		
<b>Inspection and auditing of food premises</b>	Inspection techniques and equipment Monitoring	E-book PPT Video, Posters	BAU-SPLIT	
<b>Pest prevention</b>	Overview – the Principle Of pest prevention, Pest control- Method of pest control Non-chemical control methods; Chemical control methods	E-book PPT Video, Posters	BAU-SPLIT	
<b>Pest control contracts</b>	Requirements in Selecting a Contractor, Training and qualifications, Service level agreement, Service contracts-structure, quality assurance	E-book PPT Video, Posters	BAU-SPLIT	

**Course content**

1. Introduction
2. The concept and importance of pest control in food proces; Food safety; regulations
3. Integrated program of control and pest management in food industry



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4. Pest control; Genera; Rodents; Cockroaches; Flies; Ants; Stored product insects; Birds and other vertebrates.....
5. Inspection and auditing of food premises
6. Pest prevention; Non-chemical control methods; Chemical control methods
7. Pest control contracts

**5. Teaching material available/to be prepared** (e.g. ppt presentations, case studies, videos, ...)

\*: for some topics/subtopics e-books, posters and videos are already under preparation (WP1).

	Sub-topic	Teaching material available (see WP1)*	Teaching material to be prepared	Partner institution	reference person (availability)
1	<b>Introduction</b>	E-book,  PPT	Video, Posters  e-learning  Material from e-library of the project website	E-book: BAU/SPLIT/JU/UNITE  Video: BAU/SPLIT/JU/UNITE; Monojo/ JUST	
2	<b>Integrated program of control and pest management in food industry</b>	E-book, PPT	Video, Posters e-learning Material from e-library of the project website	E-book: BAU/SPLIT/JU/UNITE Video: BAU/SPLIT/JU/UNITE; Monojo/ JUST	
3	<b>Inspection and auditing of food premises</b>	E-book,  PPT	Video, Posters  e-learning  Material from e-library of the project website	E-book: BAU/SPLIT/JU/UNITE  Video: BAU/SPLIT/JU/UNITE; Monojo/ JUST	
4	<b>Pest prevention</b>	E-book,  PPT	Video, Posters  e-learning	E-book: BAU/SPLIT/JU/UNITE	

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			Material from e-library of the project website	Video: BAU/SPLIT/JU/UNITE; Monojo/ JUST	
5	<b>Pest control contracts</b>	E-book,  PPT	Video, Posters  e-learning  Material from e-library of the project website	E-book: BAU/SPLIT/JU/UNITE  Video: BAU/SPLIT/JU/UNITE; Monojo/ JUST	

**6. Evaluation: self-evaluation**

4 questions for each subtopic should be collected.

2.5 Design and construction of Food premises

**Teaching/contact time: March 2018**

**REFERENCE PARTNER INSTITUTION: UNIST (Croatia), P9**

**1. Target group**

Students, commercial food service worker but would also for all those food handlers who are in food business or all those who intend to design, construct and fit out food premises.

**2. Course objectives**

Attendants will:

- Learn how to ensuring that design and construction of premises is complying with law and appropriate recognized standards for design and construction, including the design, installation and construction recommendations regarding food equipment and facilities to

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promote uniform design and construction standards which are not only conducive to safe food handling but which encourage it.

- get an overview of basic requirements of design and construction of food premise.

### **3. Learning outcomes:**

After completing the course, the attendants will familiarized with the major concepts of design and construction of food premises, which includes:

- how to ensuring that premises comply with law;
- how to keep clean, in good repair condition,
- have a satisfactory design, layout and construction
- have adequate washing facilities, drinking water and staff facilities,
- have satisfactory lighting, ventilation and drainage, and
- have appropriate deposition of all waste

### **4. Minimum knowledge pre-requisites** (if any)

Basic course in HACCP and pre-requisite program as a GMP, GHP, GLP

### **5. Course description**

This 16-hours course provides an understanding of requisite for design and construction of food premises. The course gives principles of hygienic design of food premises: materials, walls, ceilings, floors, windows, doors, cleaning station, hand washing facilities, ventilation; construction, maintenance and modifications of premises; refrigeration systems. This course can help and advise all those who is in food business with basis information of general and specific requirements for design and construction of food premise, Food Safety, Sanitary conveniences, Low Regulations, Legislation required, Submission and approval of plans. Contents of those dossiers as a guide have no legal force, and any obligations, but we hoped that the information, which participants can get in those courses, would help you to meet your legal obligations and to ensure food safety.

To receive a certification of completion, participants must submit a final exam and maintain an average score of 60% above.

### **6. Contents**

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1. Introduction
2. Classification of food premises
3. Principles of hygienic design of food premises
4. General requirements for design and construction of food premises
5. Specific requirements for design and construction of food premises
6. Sanitary conveniences, hand washing facilities and change rooms
7. Construction, maintenance and modification of food premises
8. Exercise: design and construction in food business
9. Seminars: design and construction of food premises (part of food premises)
10. Examination

**7. Teaching material available/to be prepared** (e.g. ppt presentations, case studies, videos, ...)

\*: for some topics/subtopics e-books, posters and videos are already under preparation (WP1).

	Sub-topic	Teaching material available (see WP1)*	Teaching material to be prepared	Partner institution	reference person (availability)
1	All topics	Power point presentations	To be defined	UNIST	To be fixed
2		Book: "design and construction of food premises"			
3		Low regulation on design and construction of food premises			
4		Some examples of design and construction of specific food premises			
5		material from the e-library of the project website			

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**Evaluation: self-evaluation**

4 questions for each subtopic should be collected.

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## 2.6 Quality Management Systems

**Teaching/contact time: 32 hours**

**REFERENCE PARTNER INSTITUTION: AUA (Greece), P11**

**1. Target group:**

- Practitioners of the food chain sector
- Experienced professionals
- Undergraduates
- Master degree students, PhD

**2. Learning outcomes:**

Trainees will be able to:

- understand the basic purpose of quality management systems, as for ISO 9000
- understand the seven quality management principles and their correlation to organizational context and performance improvement
- adopt a threats and opportunities approach to quality management
- understand the purpose of ISO 9001:2015 and its effects on Quality Management Systems
- understand the concepts and requirements defined in ISO 9001:2015 and how they differ from ISO 9001:2008
- understand the impact of ISO 9001:2015 on ISO 22000 and Food Safety Management Systems

**3. Minimum knowledge pre-requisites(if any)**

- N/A

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#### 4. Contents

	Sub-topic	Contents and/or keywords	Teaching material to be prepared *	Partner institution	Reference person (availability)
1.	Quality Management Systems as for ISO 9000	Rationale for QMS	Ppt - Infographics	AUA	To be identified
		Development of QMS over time	ppt - Infographics		
2.	The seven quality management principles	Rationale of the seven principles	ppt	AUA	
		Explanation of the seven principles	ppt		
		Actions taken by applying the seven principles	ppt, case examples		
3.	ISO 9001:2015 QUALITY STANDARD	Key Benefits of the seven principles	ppt, case examples	AUA	
		Clause 0-3 – Introduction and scope of the standard	ppt		
		Clause 4 – Context of the organization	ppt, case examples, group work		
		Clause 5 –Leadership			
		Clause 6 – Planning			
		Clause 7 – Support			
		Clause 8 – Operation			
		Clause 9 Performance evaluation			
		Clause 10 – Improvement			
4.	The Impact of ISO 9001:2015 on ISO 22000 and Food Safety Management Systems	ISO 9001:2015 vs ISO 9001:2008	Infographic		
		Clauses 4 to 10 of ISO 9001 grouped in relation to Plan-Do-Check-Act operating principle (PDCA)	ppt		
		List of mandatory documents required by ISO 9001:2015	list		
		Basic steps towards implementing the system	ppt		
			ppt, case examples, group work		

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**5. Teaching material available/to be prepared** (e.g. ppt presentations, case studies, videos, ...)

\*: for some topics/subtopics e-books, posters and videos are already under preparation (WP1).

	Sub-topic	Teaching material available (see WP1)*	Teaching material to be prepared	Partner institution	reference person (availability)
1	Quality Management Systems as for ISO 9000	e-book	PPT / Infographic	e-book: AUA + JUST + BAU + JFDA + CRE.THI.DEV.	
2	The seven quality management principles	e-book	PPT / case examples	e-book: AUA + JUST + BAU + JFDA + CRE.THI.DEV.	
3	ISO 9001:2015 QUALITY STANDARD	e-book	PPT / case examples, group work, Infographics	e-book: AUA + JUST + BAU + JFDA + CRE.THI.DEV.	
4	The Impact of ISO 9001:2015 on ISO 22000 and Food Safety Management Systems	e-book	PPT / case examples, group work	E-book: AUA + JUST + BAU + JFDA + CRE.THI.DEV.	

**6. Evaluation: self-evaluation**

4 questions for each subtopic should be collected.



## 2.7 Personal Hygiene

**Teaching/contact time:** 4 hours

**REFERENCE PARTNER INSTITUTION:** AUA (Greece), P11 / UNIST (Croatia), P9

### 1. Target group:

- Practitioners of the food chain sector
- Experienced professionals
- Undergraduates
- Master degree students, PhD

### 2. Learning outcomes:

Trainees will be able to:

- Describe the basic principles and reasons for effective personal hygiene
- Apply an effective personnel hygiene model in food business
- Identify causes of and prevention procedures for food-borne illness, intoxication, and infection.
- Demonstrate good personal hygiene and safe food handling procedures.
- Explain sanitation of dishes, equipment, and kitchens including cleaning material, garbage, and refuse.
- Discuss Occupational Safety and Health Administration (OSHA) requirements and effective workplace safety programs.

### 3. Minimum knowledge pre-requisites

- Basic knowledge of Food Safety Hazards

### 4. Contents

Sub-topic	Contents and/or keywords	Teaching material to be prepared *	Partner institution	reference person (availability)

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1.	<b>Personal Hygiene</b>	1.1 Definition of personal hygiene 1.2 Goal of personal hygiene 1.3 EU Regulations relevant to personal hygiene	<b>Ebook PPT e-learning</b>	<b>AUA-SPLIT</b>	
2.	<b>Good hygiene practices</b>	2.1 Hand washing 2.2 Clothing and cleanliness of clothing 2.3 Prohibited clothing/material 2.4 Personnel behaviour - Description of good and bad employee (in terms of food safety) 2.5 Handling of food products 2.6 Instructions for visitors	<b>Ebook PPT e-learning</b>	<b>AUA-SPLIT</b>	
3.	<b>Health and medical screening</b>	3.1 Health Certificate-medical examination of personnel 3.2 Foodborne illnesses 3.2.1 Definition and nature 3.2.2 Economic impact of foodborne illness 3.2.3 Health consequences of foodborne illness 3.2.4 Infectious dose 3.2.5 Infection 3.2.6 Intoxication 3.3 Occupational Health and Safety in food companies 3.3.1 Implementing safety training for new employees 3.3.2 Training on personnel hygiene 3.3.3 Guardrails and Floors 3.3.4 Ventilation and lightening 3.3.5 Equipment, machine guarding and maintenance 3.3.6 Personal Protective Equipment 3.3.7 Safe and hygienic Practices 3.3.8 Working in confined space	<b>Ebook PPT e-learning</b>	<b>AUA-SPLIT</b>	

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4.	<b>Employee training</b>	4.1 Content of training material 4.2 Goals of training	<b>Ebook PPT e-learning</b>	<b>AUA-SPLIT</b>	
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**5. Teaching material available/to be prepared (e.g. ppt presentations, case studies, videos, ...)**

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	Sub-topic	Teaching material available (see WP1)*	Teaching material to be prepared	Partner institution	reference person (availability)
1.	<b>Personal Hygiene</b>	Ebook	PPT e-learning	E-book: AUA + SPLIT + JUST + BAU + UJ + JU	
2.	<b>Good hygiene practices</b>	-Ebook -Videos (Hand Washing)	PPT e-learning	E-book: AUA + SPLIT + JUST + BAU + UJ + JU Videos: SPLIT + JUST + UJ + AUA + JU	
3.	<b>Health and medical screening</b>	Ebook	PPT e-learning	E-book: AUA + SPLIT + JUST + BAU + UJ + JU	
4.	<b>Employee training</b>	Ebook	PPT e-learning	E-book: AUA + SPLIT + JUST + BAU + UJ + JU	

**6. Evaluation: self-evaluation**

4 questions for each subtopic should be collected.

## 2.8 Quality Management Tools

**Teaching/contact time:** 32 hours (April 2018)

**REFERENCE PARTNER INSTITUTION:** CRE.THI.DEV. (Greece), P13

**1. Target group:**

- Practitioners of the food chain sector

[D2.1 - Definition of the educational dossiers and contents for the 6 training courses]

- Experienced professionals
- Undergraduates
- Master degree students, PhD

## 2. Learning outcomes:

Trainees will be able to:

- Understand the basic principles of quality and quality management
- Understand the principles of Statistical Process Control
- Understand and use in processes the basic quality tools

## 3. Minimum knowledge pre-requisites

**Minimum requirements (knowledge):** Basic knowledge of statistics

## 4. Contents

	Sub-topic	Contents and/or keywords	Teaching material to be prepared *	Partner institution	Reference person (availability)
1.	Basic Quality Concepts	Basic Quality Definitions	.ppt	CRETHIDEV	To be determined
		History Of Quality Control And Improvement	.ppt		
2.	Statistical Quality Control	Statistics Used In Quality	.ppt		
		Statistical Process Control	.ppt		
		Acceptance Sampling	.ppt, case examples		
3.	The Main Quality Tools	Check Sheets	.ppt, case examples, group work		
		Run Charts			
		Histograms			
		Scatter Diagrams			
		Pareto Charts			
		Flowcharts			

[D2.1 - Definition of the educational dossiers and contents for the 6 training courses]

	Sub-topic	Contents and/or keywords	Teaching material to be prepared *	Partner institution	Reference person (availability)
		Cause And Effect (Fishbone) Diagrams			
		Design Of Experiments (DOE)			
		Control Chart For Variables			
		Control Charts For Attributes			
4.	<b>Advanced Quality Tools</b>	Process Capability (Capability Indices)	.ppt, case examples, group work		
		Value Analysis - Value Engineering (VA/VE)			
		a) Value Analysis			
		b) Value Engineering			
		Value Stream Mapping (VSM)			
		Quality Costs			
		a) Total Quality Cost			
		b) Conformance Cost			
		• Prevention Cost			
		• Appraisal Cost			
		c) Non-Conformance Cost			
		• Internal Failure Cost			
		• External Failure Cost			

**5. Teaching material available/to be prepared** (e.g. ppt presentations, case studies, videos, ...)

\*: for some topics/subtopics e-books, posters and videos are already under preparation (WP1).

	Sub-topic	Teaching material available (see WP1)*	Teaching material to be prepared	Partner institution	reference person (availability)
1.	<b>Basic Quality Concepts</b> • Basic Quality Definitions • History Of Quality Control And Improvement	e-book	ppt, case examples	e-book: CRETHIDEV, AUA, JFDA, BAU, JUST	
2.	<b>Statistical Quality Control</b> • Statistics Used In Quality • Statistical Process Control • Acceptance Sampling	e-book	ppt, case examples	e-book: CRETHIDEV, AUA, JFDA, BAU, JUST	

[D2.1 - Definition of the educational dossiers and contents for the 6 training courses]

3.	<b>The Main Quality Tools</b> <ul style="list-style-type: none"> <li>• Check Sheets</li> <li>• Run Charts</li> <li>• Histograms</li> <li>• Scatter Diagrams</li> <li>• Pareto Charts</li> <li>• Flowcharts</li> <li>• Cause And Effect (Fishbone) Diagrams</li> <li>• Design Of Experiments (DOE)</li> <li>• Control Charts for Variables</li> <li>• Control Charts for Attributes</li> </ul>	e-book	ppt, case examples	e-book: CRETHIDEV, AUA, JFDA, BAU, JUST	
4.	<b>Advanced Quality Tools</b> <ul style="list-style-type: none"> <li>• Process Capability (Capability Indices)</li> <li>• Value Analysis - Value Engineering (VA/VE)</li> <li>• Value Stream Mapping (VSM)</li> <li>• Quality Costs</li> </ul>	e-book	ppt, case examples	e-book: CRETHIDEV, AUA, JFDA, BAU, JUST	

**6. Evaluation: self-evaluation**

4 questions for each subtopic will be collected.

\_\_\_\_\_ END OF THE DELIVERABLE \_\_\_\_\_