

# Detailed definition of the model of e-learning courses

WP 2 – Development of Training courses

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FOOD SAFETY AND QUALITY**  
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[D2.4 - Detailed definition of the model of e-learning 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.

The Deliverable D2.4. deals with Definition of **3 e-learning training courses** (to be tested and pilot) model

1. Food safety management systems
2. Quality management systems
3. Personnel Hygiene

## 2 Plan and activities

The topics of interest for the development of the e-learning materials were defined during the implementation and planning of the FOODQA project proposal based on already evidenced needs to enhance knowledge and competences of academia staff, professionals and practitioners of the food industries on food safety and quality management.

The following main topics were selected:

1. Food safety management systems (P&B)
2. Quality management systems (AUA)

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### 3. Personnel Hygiene (AUA+ SPLIT)

During the project meetings held in Porto (Jan 2018) and Amman (April 2018) a Core group team made of the partners with the required expertise was set (JUST, UJ, UNITE, P&B, SPLIT, AUA) and the responsible for each e-learning course identified as follows:

1. P&B: responsible of the “Food safety management systems “
2. AUA : responsible of the “Quality management systems “
3. AUA + SPLIT: responsible of the “Personnel Hygiene “

Each responsible of the e-learning module was asked to develop a specific syllabus of the e-learning course.

This document contains all the information of the course needed for the trainee and will be made available on the e-learning platform. It provides a description of the topics and subjects covered in each module and the learning outcomes expected to achieve on completion, knowledge prerequisites. Each module has to be described for workload time, contact time and reference person.

The syllabus of the three e-learning courses is here reported.

## 3 Syllabus: Food safety management systems

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**Teaching/contact time: 13 h**

**Total time (synchronous+asynchronous): 26**

**ECTS: 3**

**REFERENCE PARTNER INSTITUTION: Paulo & Beatriz – Consultores Associados, Lda**

### 1. Target group:

- Staff of food industries and food related companies involved in quality and food safety management or with responsibilities in operational areas such as in production.
- Professionals or students in their final years of degree with interest in quality and food safety and background in food related areas.
- Staff from Jordanian universities with knowledge / activities related to food and food safety issues

### 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.

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### 3. Minimum knowledge pre-requisites

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

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

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### 4. Contents

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

Module no.	Type of session	Duration (h)	Sub-topic	Contents and/or keywords	Partner institution/ reference person
S1.1	Synchronous	0.5 h	Section 1 - The HACCP System 1.1. Introduction 1.2. The concept of HACCP 1.3. The principles of HACCP	The concept of HACCP The principles of HACCP	Paulo Baptista
S1.2	Synchronous	1 h	Section 1 – The HACCP System 1.4. The HACCP Methodology	HACCP Team Product description Intended use for the product Construction of the flow diagram Verification of the flow diagram	Paulo Baptista
S1.3	Synchronous	1.5 h	Section 1 – The HACCP System 1.4. The HACCP Methodology	Hazard analysis Determination of critical control points Establishment of critical control limits Establishment of monitoring system Establishment of corrective actions	Paulo Baptista



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				Establishment of verification procedures Documents and records	
S1.4	Synchronous	1 h	Section 1 – The HACCP System Reviews exercises / case studies	(contents of 1.1 and 1.2)	Paulo Baptista
A1.1	Asynchronous	5,0 h	Section 1 – The HACCP System Study and resolution of evaluation exercises	(contents 1.1, 1.2 and 1.3)	
S1.5	Synchronous (8 days after synchronous session 1.3)	1 h	Discussion /solutions of evaluation exercises	(contents 1.1, 1.2 and 1.3)	Paulo Baptista
S2.1	Synchronous	1.5 h	Section 2 - Food Safety management systems - IFS standard 2.1 . Senior management responsibility 2.2. Quality and food safety management system 2.3. Resources management	Corporate policy/Corporate principles Corporate structure Customer focus Management review Quality Management Documentation requirements Record keeping HACCP system HACCP analysis Human resources management Personnel hygiene Protective clothing for personnel, contractors and visitors Procedures applicable to infectious diseases Training and instruction Sanitary facilities, equipment for personnel hygiene and staff facilities	Paulo Baptista
S2.2	Synchronous	1.5 h	Section 2 - Food Safety management	Contract agreement Specifications and formulas	Paulo Baptista

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			systems - IFS standard 2.4. Planning and production process	Product development Purchasing Product packaging Factory location Factory Exteriors Plant layout and process flows Constructional requirements for production and storage areas Cleaning and disinfection Waste disposal Risk of foreign bodies, metal, broken glass and wood	
S2.3	Synchronous	1.5 h	Section 2 - Food Safety management systems - IFS standard 2.4. Planning and production process	Pest monitoring/ pest control Receipt of goods and storage Transport Maintenance and repair Equipment Traceability Genetically modified organisms (GMOs) Allergens and specific conditions of production Food fraud	Paulo Baptista
S2.4	Synchronous	1.5 h	Section 2 - Food Safety management systems - IFS standard 2.5. Measurements, analysis, improvements 2.6. Food defense and external inspections	Internal audits Site factory inspections Process validation control Calibration, adjustment and checking of measuring and monitoring devices Quantity checking (quantity control/filling quantities) Product analysis Product quarantine (blocking/hold) and product release Management of complaints from authorities and customers Management of incidents, product withdrawal, product recall Management of non-conformities and non-conforming products Corrective actions	Paulo Baptista

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				Defense assessment Site security Personnel and visitor security External inspections	
S2.5	Synchronous	1 h	Section 2 - Food Safety management systems - IFS standard Review exercises / case studies	(contents 2.1, 2.2 and 2.3)	Paulo Baptista
A2.1	Asynchronous	8 h	Section 2 - Food Safety management systems - IFS standard Study and resolution of evaluation exercises	(contents 2.1, 2.2 and 2.3)	
S2.6	Synchronous (8 days after synchronous session 2.4)	1 h	Section 2 - Food Safety management systems - IFS standard Discussion /solutions of evaluation exercises	(contents 2.1, 2.2 and 2.3)	

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

\*: for some topics/subtopics e-books, posters and videos have been prepared in WP1.

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

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**Evaluation: self-evaluation**

Evaluation will be based either: in multiple choice questions or short questions based on short case-studies and/or situation for identification of deviations concerning standards requirements and grading of the non-conformities.

For each one of the two sections of the course, evaluation exercises will be make available for resolution at the beginning of the first session of that section.

Resolution of the evaluation exercises of each section has to be submitted up to 7 days after the last synchronous training session of the section was finished (excluding the sessions of “Discussion /solutions of evaluation exercises”).

## 4 Syllabus: Food safety management systems

**Teaching/contact time: 12.5 hours**

**Total time: 25 hours**

**ECTS: 1,5**

**REFERENCE PARTNER INSTITUTION: Agricultural University of Athens**

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### Target group:

- Staff of food industries and food related companies involved in quality and food safety management or with responsibilities in operational areas such as in production.
- Professionals or students in their final years of degree with interest in quality and food safety and background in food related areas.
- Staff from Jordanian universities with knowledge / activities related to quality and food safety issues

### **5. Learning outcomes:**

Trainees will:

- Understand the rationale for QMS.
- Understand the typical structure of ISO 9001:2015
- Understand the ten clauses of ISO 9001:2015.
- Understand purpose and benefits of a Food Safety Management System.
- Understand purpose, benefits and structure of ISO 22000:2005.
- Understand purpose, benefits and structure of revised ISO 22000 as an impact of ISO 9001:2015.

### **6. Minimum knowledge pre-requisites**

Minimum requirements: i) Basic knowledge in quality management principles & Systems

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Additional 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).

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## 7. Contents

<b>Module no.</b>	<b>Type of session</b>	<b>Duration</b>	<b>Sub-topic</b>	<b>Contents and/or keywords</b>	<b>Partner institution / reference person (availability)</b>
S1.1	Synchronous	1 h	Section 1 – ISO 9001:2015 Standard 1.1. Introduction - Basic Definitions 1.2. Development of the ISO 9001 over time 1.3. Structure of the Standard - The seven Quality Management Principles	Concept – Definitions – History – PCDA – Seven Management Principles	Evangelia Daratsanou
S1.2	Synchronous	1h	Section 1 – ISO 9001:2015 1.4 Clause 0-3 – Introduction and scope of the standard 1.5 Clause 5 – Context of the organization	Standard's Requirements – Analysis/Actions – Documentation Examples/Evidencing	Lampros Sakkas

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S1.3	Synchronous	1hour	Section 1 – ISO 9001:2015 1.6 Clause 5 – Leadership 1.7 Clause 6 – Planning 1.8 Clause 7 – Support	Standard's Requirements – Analysis/Actions – Documentation Examples/Evidencing	E. Daratsanou
S1.4	Synchronous	1,5h	Section 1 – ISO 9001:2015 1.9 Clause 8 – Operation	Standard's Requirements – Analysis/Actions – Documentation Examples/Evidencing	Nestor Papanikolaou
S1.5	Synchronous	1,5 h	Section 1 – ISO 9001:2015 1.10 Clause 8 – Operation	Standard's Requirements – Analysis/Actions – Documentation Examples/Evidencing	Nestor Papanikolaou
S1.6	Synchronous	1 h	Section 1 – ISO 9001:2015 1.11 Clause 9 - Performance evaluation 1.12 Clause 10 – Improvement	Standard's Requirements – Analysis/Actions – Documentation Examples/Evidencing	Lampros Sakkas
S1.7	Synchronous	1 h	Section 1 – ISO 9001:2015 1.12 Major changes on ISO 9001:2015 1.13 Steps to be undertaken for the Implementation of the System	High Level Structure, Risk Management, Documents flexibility, Stakeholders, Top Management Engagement, Customer Satisfaction Improvement	E. Daratsanou

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S1.8	Synchronous	1,5 h	Section 1 – ISO 9001:2015 Case Studies – Review Exercises	(Contents 1.5 – 1.12)	Nestor Papanikolaou
A1.1	Asynchronous	9 h	Section 1 – ISO 9001:2015 Study and resolution of the evaluation exercises	(Contents 1.5 – 1.12)	
S1.9	Synchronous	1 h	Section 1 – ISO 9001:2015 Discussion / Solution of the evaluation exercises	Contents 1.5 – 1.12)	Nestor Papanikolaou
S2.1	Synchronous	1 h	Section 2– The Impact Of ISO 9001:2015 On ISO 22000 And Food Safety Management Systems 2.1 Food Safety Management Systems/Definition of ISO 22000 2.2 Impact of ISO 9001:2015 on ISO 22000		Lampros Sakkas
S2.2	Synchronous	0.5 h	Section 2– The Impact Of ISO 9001:2015 On ISO 22000 And Food Safety Management Systems Review Exercises	(Content 2.1 & 2.2)	Lampros Sakkas
A2.1	Asynchronous	3,5 h	Section 2– The Impact Of ISO 9001:2015 On ISO 22000 And Food Safety Management Systems Study and resolution of the evaluation exercises	(Content 2.1 & 2.2)	
S2.3	Synchronous	0.5 hour	Section 2– The Impact Of ISO 9001:2015 On ISO 22000 And Food	(Content 2.1 & 2.2)	Lampros Sakkas



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			Safety Management Systems  Discussion / Resolution of the evaluation exercises		
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#### **4. Teaching material available/to be prepared**

*(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>ISO 9001:2015 Standard</b>	Quality management systems (ISO 9001:2015)-ebook	ppt presentations, articles, case studies, exercises	AUA	<i>Evangelia Daratsanou</i>  <i>Nestor Papanikolaou</i>  <i>Lampros Sakkas</i>
2	<b>The Impact Of ISO 9001:2015 On ISO 22000 And Food Safety Management Systems</b>	Quality management systems (ISO 9001:2015)-ebook	ppt presentation, articles, exercises	AUA	<i>Lampros Sakkas</i>

#### **Evaluation: self-evaluation**

[D2.4 - Detailed definition of the model of e-learning courses]

Evaluation will be based either: in multiple choice questions or short questions based on short case-studies and/or situation for identification of deviations concerning standards requirements and grading of the non-conformities.

For each one of the two sections of the course, evaluation exercises will be available for resolution at the beginning of the first session of that section.

Resolution of the evaluation exercises of each section has to be submitted up to 7 days after the last synchronous training session of the section was finished (excluding the sessions of “Discussion /solutions of evaluation exercises”).

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## 5 Syllabus: Personnel Hygiene

**Teaching/contact time: 13**

**Total time of the course: 25**

**ECTS: 1**

**REFERENCE PARTNER INSTITUTION: AUA / UNIST**

### 1. Target group:

- Staff of food industries and food related companies involved in quality and food safety management or with responsibilities in operational areas such as in production.

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- Professionals or students in their final years of degree with interest in quality and food safety and background in food related areas.
- Staff from Jordanian universities with knowledge / activities related to food and food safety issues

## 2. Learning outcomes:

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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.
- Develop their capability, by integration of knowledge, to be able to teach these subjects in Jordan.

## 3. Minimum knowledge pre-requisites

Minimum requirements: i) Basic knowledge in food safety principles / hazards

## 4. Contents

\*synchronous/asynchronous

Module no.	Type of session*	Duration (h)	Sub-topic	Contents and/or keywords	Partner institution / reference person
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S1.1	Synchronous	1h	<b>Section 1 – Personal Hygiene</b> 1.1 Definition of personal hygiene 1.2 Goal of personal hygiene 1.3 EU Regulations relevant to personal hygiene	<b>Personal hygiene – Regulations – Food safety</b>	UNIST/ Giljanovic	Josipa
A1.1	Asynchronous	2h	<b>Section 1 – Personal Hygiene</b> <b>Study and resolution of the evaluation exercises</b>	<b>(Contents 1.1 – 1.3)</b>		
S1.2	Synchronous	1h	<b>Section 1 – Personal Hygiene</b> <b>Discussion / Solution of the evaluation exercises</b>	<b>(Contents 1.1 – 1.3)</b>	UNIST/ Giljanovic	Josipa
S2.1	Synchronous	1h	<b>Section 2 – Good hygiene practices</b> 2.1 Hand washing 2.2 Clothing and cleanliness of clothing 2.3 Prohibited clothing/material	<b>Hand washing instructions – GHP – Clothing – Protective equipment</b>	UNIST/ Giljanovic	Josipa
S2.2	Synchronous	1h	<b>Section 2 – Good hygiene practices</b> 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>Personnel behaviour- Food handling instructions - Visitors policy</b>	UNIST/ Giljanovic	Josipa
A2.1	Asynchronous	3h	<b>Section 2 – Good hygiene practices</b> <b>Study and resolution of the evaluation exercises</b>	<b>(Contents 2.1 – 2.6)</b>		

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S2.3	Synchronous	1 h	<b>Section 2 – Good hygiene practices</b>  <b>Discussion / Solution of the evaluation exercises</b>	<b>(Contents 2.1 – 2.6)</b>	UNIST/ Giljanovic	Josipa
S3.1	Synchronous	2h	<b>Section 3 – 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	<b>Health certificate - medical examination – foodborne illness – infection – intoxication</b>	AUA Papanikolaou Nestor	/
S3.2	Synchronous	2h	<b>Section 3 – Health and medical screening</b>  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	<b>Occupational health/safety – training – protective equipment – safe practices</b>	AUA Papanikolaou Nestor	/

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			3.3.8 Working in confined space		
A3.1	Asynchronous	4h	<b>Section 3 – Health and medical screening</b> <b>Study and resolution of the evaluation exercises</b>	<b>(Contents 3.1 – 3.3)</b>	
S3.3	Synchronous	1 h	<b>Section 3 – Health and medical screening</b> <b>Discussion / Solution of the evaluation exercises</b>	<b>(Contents 3.1 – 3.3)</b>	AUA Papanikolaou Nestor
S4.1	Synchronous	2h	<b>Section 4 – Employee training</b> 4.1 Content of training material 4.2 Goals of training	<b>Training material – training program - training records – training modules – training goals</b>	AUA Papanikolaou Nestor
A4.1	Asynchronous	3h	<b>Section 4 – Employee training</b> <b>Study and resolution of the evaluation exercises</b>	<b>(Contents 4.1 – 4.2)</b>	
S4.2	Synchronous	1 h	<b>Section 4 – Employee training</b> <b>Discussion / Solution of the evaluation exercises</b>	<b>(Contents 4.1 – 4.2)</b>	AUA Papanikolaou Nestor

**4. 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>Personal Hygiene</b>	Personnel hygiene Ebook	ppt presentations, exercises	<b>UNIST</b>	Josipa Giljanovic

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2	<b>Good hygiene practices</b>	Personnel hygiene Ebook, Hand washing video, Hand washing poster	ppt presentations, exercises	<b>UNIST</b>	<i>Josipa Giljanovic</i>
3.	<b>Health and medical screening</b>	Personnel hygiene Ebook	ppt presentations, exercises	<b>AUA</b>	<i>Papanikolaou Nestor</i>
4.	<b>Employee training</b>	Personnel hygiene Ebook	ppt presentations, exercises	<b>AUA</b>	<i>Papanikolaou Nestor</i>

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**Evaluation: self-evaluation**

Evaluation will be based either: in multiple choice questions or short questions based on examples presented in each course.

For each one of the course's sections, evaluation exercises will be available for resolution at the beginning of the first session of that section.

Resolution of the evaluation exercises of each section has to be submitted up to 7 days after the last synchronous training session of the section was finished (excluding the sessions of "Discussion /solutions of evaluation exercises").

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