

FOODI PROFESSIONAL TRAINING COURSES



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D2.7 FOODI VET COURSES

WP2: Capacity-building and Curricula development

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Table of Contents

EXECUTIVE SUMMARY	5
1 INTRODUCTION.....	6
1.1 Courses' Outlines.....	8
2 EDUCATIONAL MATERIAL.....	10
2.1 Basic concepts when designing a VET course	10
3 MODULARITY	11
4 CORE MATERIAL.....	12
5 LEARNING OBJECTS	13
6 LEARNING OUTCOMES.....	14
7 ASSESSMENT.....	16
7.1 The applicable European Framework – The Quality Cycle.....	16
7.2 Linkage of assessment standards to the design of VET curricula	17
7.3 An overview of assessment in VET	17
7.4 The stages of the assessment process.....	19
7.5 Assessment methods.....	19
7.6 Learners' self-assessment	20
8 A PRACTICAL GUIDE.....	22
8.1 Using different kinds of assessment methods in VLE	22
8.2 Practical Assignments	23
8.3 Application of assessment methods in FOODI	23

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8.4	Success rate	24
9	THE ROLE OF THE TRAINERS AND MATERIAL REVIEW	25
9.1	Trainers.....	25
9.2	Identification of learners	25
10	CONCLUSIONS.....	26
11	TIMEFRAME.....	27
	ANNEX 1. TEMPLATES	28
	ANNEX 2. FOODI COMPLETED COURSE OUTLINES.....	37

List of tables

Table 1 Professional Courses' Outline	9
Table 2 FOODI VET courses hours' allocation	10

List of figures

Figure 1 The Quality Circle	16
Figure 2 Feedback mechanism between VET and labour market – Source Cedefop 2013.....	19

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Executive Summary

The current document constitutes the methodological framework regarding the design and development of the professional training courses within the FOODI project.

Each Asian University is set to develop 1 new professional training course tailor made to the training needs of the regional food industry and special characteristics of its region.

A total of 10 new professional training courses will be created following the input from D1.3 of WP1 in order to become targeted to local needs.

The professional training courses will run in 4 rounds in the third year of the project.

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1 Introduction

The current methodological framework aims to introduce the Asian Universities participating in the *FOODI project* to the design and development of professional training courses aimed to be delivered within the piloting phase of the project. It will provide details following the results from the Deliverable 1.3 “**Identification of existing professional training courses in the subject area and demand for internships in the partner countries**”.

More specifically, the idea of the creation of the FOODI professional training courses lies in the very heart of the project. FOODI aims not only to develop a Master’s program in order to develop new food innovation professionals ready to enter the labour market but also to help already professionals working in the sector in order to cover any skills’ gaps and enhance their knowledge and competences in accordance to the market’s needs. The needs have already been identified in the Deliverable 1.3. via interviews and focus groups help with businesses of the food sector in the three participating countries of Malaysia, Cambodia and Thailand.

Following the results, each country has identified both common and different necessities in terms of staff skills and competences needed. Taking up on these results, the Asian HEIs, have agreed a division among them so that each HEI develops a different professional training course resulting to 10 developed professional training courses within the FOODI project.

The professional training courses will be piloted WP3, therefore, the details of this document are used as guidelines for the VET curricula and the design of the corresponding part of the methodology.

Worth to note is that the to-be designed courses will be designed and available fully online via a VLE specifically designed for the project. Regardless the learners’ nationality, (s)he will be available to express his/her interest and participate to any of the developed courses. This means that a professional from Cambodia will be available to take a course developed by one of the Malaysian Universities etc.

The professional courses’ profile is:

- ✓ ***Professionals already working within the food sector***
- ✓ ***Graduates who aim to get in the sector’s labour market***

The occupational profiles engaged are the ones as stated in ESCO¹: food safety specialist, food and beverage packaging technologist and food safety inspector

¹ European Skills, Competences, Qualifications

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Following the completion of the Course(s), the learner will be able to receive a Certificate from the FOODI Partnership while the same learner will be available to take any of the courses (s)he wishes.

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1.1 Courses' Outlines

As already mentioned, the Asian HEIs divided among them the professional courses that will be developed, based on the results found in terms of currently existing skills and competences in the sector from the current workforce in the three participating countries.

The research conducted during Work Package 1 indicated that the demands are not met due to the identified skills mismatches.

Having this as a compass, the Asian partners have selected to design the courses below:

Malaysia

1. New Food Product Development & Marketing – UTM
2. Halal Food Assurance – UiTM
3. Food Science & Wellness – UM
4. Introduction to Food Safety - Unicl

Cambodia

5. Food Product Development and Innovation – PSU
6. Food Quality Management – SRU
7. Food Supply Chain Management (FSCM) – UBB
8. Food Product Development and Nutrition Security (FPD & NS) - UHST

Thailand

9. Innovations in Safety, Quality and Sustainability in Food Production – AIT
10. Food Safety and Food Quality – ITC

As a first step to the courses' design is the formation of the course outline.

A template has been shared to all partners during the Study visit in Salerno where the Asian HEIs had the opportunity to work on the template a found below:

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Professional Course Outline	
Course title	<i>Official title as shown in the platform</i>
Course description	<i>No more than 3 lines</i>
Knowledge domain	<ul style="list-style-type: none"> • <i>List no more than 3</i>
Course addressed to	<i>Who are the learners?</i>
Basic learning objectives	<ul style="list-style-type: none"> • <i>List more than 5</i>
Course length	<i>8 Weeks</i>
Course schedule (course modules codes, titles and description)	<ul style="list-style-type: none"> • <i>Division of modules</i>
Learners' profile	<i>Learners' characteristics</i>
Participation prerequisites	<i>If any</i>
Special needs from the educational environment	<i>If any</i>

Table 1 Professional Courses' Outline

The completed Outlines as prepared by the Asian HEIs can be found in the Annex.

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2 Educational Material

After examining thoroughly the research results, it has been proven that despite being more or less technologically advanced, employees in the sector of food in Malaysia, Cambodia and Thailand lack various skills that are needed in their profession varying from soft to technical skills.

In order to address the above issue, the FOODI project will be providing learners with professional training courses which will cover the identified skills gaps in the food sector.

The Professional VET courses within the FOODI project will consist of the following:

- **Innovative e-Learning:** Up to 40 hours of e-learning material and self-study
- **Assessment:** Up to 5 hours of assessment

All Asian HEIs will lead the design of these activities, each one developing one Course, resulting to 10 overall for the FOODI project.

The Professional training courses are set to run 4 times in the 3rd year of the project and are expected to attract 5 professionals from local businesses per round (i.e. a total of 20 participants per Asian HEI).

2.1 Basic concepts when designing a VET course

Similarly, to the Master's Course, in order to design the core material, the Asian HEIs should take into consideration the below key points:

- **Learning Outcomes:** What participants (target groups identified in the introduction) will be able to know/do after the completion of each module.
- **Training Materials:** What training materials need to be developed and what the materials will include, in order to achieving the programme's goals.
- **Training Methods:** The methods that will be used so that participants meet the learning objectives and acquire necessary skills and competences.
- **Logistics:** Where and when the piloting will take place and what type of logistics will be needed.

<i>Educational Material</i>	<i>Course</i>
<i>Core Material</i>	<i>43 hours</i>
<i>Assessment</i>	<i>11 hours</i>

Table 2 FOODI VET courses hours' allocation

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3 Modularity

Learners may find compactly structured relevant material about a topic more easily without scrolling through a lot of texts or scrubbing through an hour-long video to find the one piece of information they were searching for.

Training modules are arranged in such a way that training material (e.g. video clips / reading material / PowerPoint presentations) alternates with exercise content. This will also allow a modular course content or exercise to be easier to change, reorganize, substitute, or enhance because it minimizes the effect on neighboring material. Modularity will also facilitate sharing of content by virtue of being easier to link to.

The Modular approach basically means that a two-phase training process will take place:

- First, the **foundational knowledge** which underlies a specific skill. The aim here is to “bring” all students to the same level of knowledge.
- Second, the “**performance of the skill**” reliably and under varying conditions. This can be realized either online (*test cases, self-assessments, real work problems*) or even in-person training. In any case the critical part here is that all students have acquired the needed knowledge in an efficient and cost-effective manner through the FOODI online platform.
- Third, towards supporting flexibility, the **existence of mandatory and optional modules** is a good practice in organizational trainings.

In this context, the material will be organised as following:

- **Course outlines** will contain all the course content.
- **Course sections** (*Modules/Weeks*) will be at the top level of the course and typically represent a time period. A section contains one or more subsections.
- **Course subsections** (*Lessons*) will be parts of a section, and usually represent a topic or other organizing principle.
- **Course units** will be lessons in a subsection that students view as single pages. A unit can contain one or more components.
- **Course components** will be objects within units that contain the actual course content: Videos, reading material, problems/quizzes and discussion forums.

→ Please see relevant tables provided in the Annex

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4 Core Material

The core material of the to-be developed courses focuses on **offering different levels of experience and abilities** to learners. The curricula will offer flexibility and a personalized learning experience.

The idea is that the learners will be able to be engaged in the training activities regardless of time and location via the VLE. More specifically they will be able to:

- Participate from any location
- Participate in multiple concurrent discussions
- Follow asynchronous discussions where participants do not need to be conversing at the same time in order to participate.

Each module consists of educational material and half an hour of assessment (see practical assignments chapter) *e.g. if a module's indicative hours are 3, it should include 2,5 hours of learning material and half an hour for the assignment*).

Core material of the course will be consisted of lectures (*self-running presentation - power point presentation with or without voice over*) and material of any kind for self-study (*papers, videos, e-books etc.*). The author of each module is free to use any type of lecture (s)he finds more appropriate. The tables found in the appendix of this document, should be completed by the authors, and revised by AMC before the final development of each module.

In terms of knowledge the courses offer both theoretical and practical knowledge in specific areas. Special focus should be given to **Customer Service** and **Sales techniques, Communication** and **Logistics** while basic knowledge regarding **Legislative** and **GDPR issues** will be acquired. The number of teaching modules of all courses is summarized in order to understand the focus and time given in specific training areas.

The template for the design and development process for each module is presented in the Annex.

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5 Learning Objects

Learning Object is any entity, digital or non-digital, that can be used, re-used or referenced during technology-supported **learning**. Examples of **learning objects** include multimedia content, instructional content, instructional software and software tools that are referenced during technology-supported learning.

Examples of smaller reusable digital resources include *digital pictures or photographs, animation and video clips, small pieces of text, animations and smaller applications available via Web*. Examples of bigger reusable digital resources include *entire web pages that combine text, pictures and other means, or applications that offer a complete educational experience*.

A typology of several kinds of learning objects may include:

- **Presentation object:** Direct instruction and presentation resources designed with the intention to transmit specific subject matter.
- **Practice object:** Drill and practice with feedback, educational game or representation that allows practice and learning of certain procedures
- **Simulation object:** Representation of some real-life system or process
- **Conceptual model:** Representation of a key concept or related concepts of subject matter
- **Information object:** Display of information organized and represented with modalities
- **Contextual representation:** Data displayed as it emerges from represented authentic scenario

Learning objects should be presented in a document which should include a contents table similar to the one described below:

- **Introduction** → Introduces the reader to the contents that will follow
- **Chapter or Section** → A paragraph that provides an overview of the chapter
- **Sub-section second level:**
 - a. **Case Study** → A relevant case study
 - b. **Summary** → A summary of the sub section
- **Synopsis** → A brief summary of the major points of the learning object
- **List of references** → The references used
- **Glossary** → Analysis of Terms
- **Further reading** → Proposals for further relevant reading

The template for the design and development of learning objects is presented in the Annex.

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6 Learning Outcomes

The FOODI project will develop the Joint Curricula using the **Learning Outcomes approach**. According to **Cedefop** the *learning outcomes approach shifts the emphasis from the duration of learning and the institution where it takes place to the actual learning and the knowledge, skills and competences that have been or should be acquired through the learning process*" (Cedefop 2013: USING LEARNING OUTCOMES. European Qualifications Framework Series)².

The learning outcomes approach is of significant importance in designing common curricula for different countries because it functions as a common tool for interlinking the VET relevant tools such as EQF, ECVET, and EQAVET.

Appropriate assessment methods and procedures are used to check whether the learning outcomes have been achieved. The alignment between learning outcomes, teaching, learning and assessment helps to make the overall learning experience more coherent, transparent and meaningful for learners, and all other stakeholders.

Learning outcomes are directly connected to learning assessment. They clearly define what and how is to be assessed. They enable harmonization in assessing the learner's performance therefore, the learning outcomes affect the process of teaching and learning through assessment.

In this understanding the purposes of integrating the learning outcomes in the **Curriculum Design** are:

- To define the expectations of each learning activity.
- To guide trainers in the teaching process, choice of methods, etc.
- To inform learners about what they are expected to be able to do/know after the learning activity.

Summarizing, the learning outcomes **explain what the learner is expected to know** and **be able to do**, after having completed the training program. They describe the learning process itself and clarify what to expect during assessment.

Throughout the teaching and learning process as well in assessment arrangements, well-written learning outcomes allow both teachers and learners to have a clear picture of the results of the courses or units.

→ **The methodology selected for the development of the FOODI learning outcomes is the Bloom's Taxonomy** broken into the six levels of objectives, as shown in the picture:

²Learning Opportunities and Qualifications in Europe, Available at: <https://ec.europa.eu/ploteus/content/descriptors-page>

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The Bloom's Taxonomy uses action verbs in a framework for understanding the different levels of learning, also inspired by the structure and vocabulary of the European Qualification Framework (EQF).

Each statement, after the common statement on audience ("A learner ..."), should begin with a precise action (active) verb, followed by the object of the verb followed by a phrase that gives the context. It is generally benefit to use only one verb for one statement of learning outcomes, except in the cases when the complexity of specific learning outcomes additionally needs to be described.



Upon completion of this course, the learner will be able to:

- ✓ **define** future developments in the xxx sector

Evaluation questions while developing learning outcomes are:

- ✓ *What knowledge was gained?*
- ✓ *What skills were developed?*
- ✓ *Did attitudes/tendencies change?*

It is suggested to write Learning Outcomes of the three upper levels of the Bloom taxonomy (4. Analysis, 5. Synthesis, 6. Evaluation) and use verbs like:

- arrange, classify, compare, differentiate, distinguish, infer for the Analysis level
- construct, create, design, develop, generate, integrate, reconstruct for the Synthesis level
- assess, criticize, decide, evaluate, grade, judge, predict, rate, recommend for the Evaluation level

The template for the production of the learning outcomes is presented in the Appendix.

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7 Assessment

Assessment is a process that helps focus attention towards what matters most in education, beyond just access and participation: the actual learning outcomes of each student. Gathering information on where students stand in their learning and the progress that they have made is key to designing strategies for the further improvement of teaching and learning. Sharing such information with stakeholders across the education system is essential to meet information needs and support decision making at the classroom, school, and education system level (OECD, 2013).

According to Cedefop (2015) assessment is understood as a process of identifying the extent to which a learner has attained particular knowledge, skills and competences (relating to part of a qualification or the whole qualification). Assessment standards have to answer the question **“How will we know what the learner/learner has learned and is able to do in employment?”**

7.1 The applicable European Framework – The Quality Cycle

As FOODI is an Erasmus+ project, we decided to adopt the **Common Quality Assurance Framework (CQAF)** for the assessment of the VET courses as it constitutes a European reference framework to ensure and develop quality in vocational education and training (VET), building on the key principles of the most relevant existing quality assurance models. It allows for capturing and classifying best practice within and across Member States (European Commission 2015).

The CQAF comprises a model to simplify planning, implementation, evaluation and review of systems at appropriate levels in Member States;

The model includes:

- planning,
- implementation,
- evaluation and assessment,
- review.

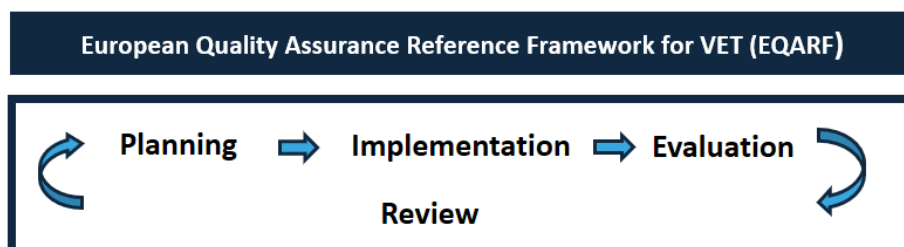


Figure 1 The Quality Circle

For each of these elements core quality criteria have been identified. Considering the various choices made by Member States to deal with quality assurance and development in VET, the core criteria are presented as

possible answers to specific questions which are transversal to any VET system or provider when reviewing policies.

Planning (purpose and plan)

This relates to the setting up of clear and measurable goals regarding policies, procedures, tasks, and human resources.

Implementation

It is essential to establish key, coherent principles that underpin implementation of the planned actions to ensure effectiveness in achieving the set goals and objectives.

Evaluation and assessment

This covers continuous evaluation of programme provision by objectives (including learner data) and assessment of outcomes achieved at system and individual levels. In general, the assessment and evaluation phase consist of two parts, data collection and processing, and discussions on results achieved.

Review (feedback and procedures for change)

Quality assurance and development is a continuous and systematic process. It must undergo constant review combining self-assessment with evaluation by an external body, processing feedback and organising procedures for change.

7.2 Linkage of assessment standards to the design of VET curricula

During the design of the FOODI professional training courses, the assessment standards will be taken into consideration. The backbone of the assessment standards is the **learning-outcome based approach** in designing a training programme. Learning outcomes specify the criteria for success/failure and learners' performance and enable the assessment process to become more transparent and fit for purpose, since learning outcomes define what behavior is supposed to be assessed.

Learning outcomes have three major characteristics:

- They specify an action by the learner that is **observable**;
- They specify an action by the learners that is **measurable**;
- They specify an action that is done by the learner.

Learning outcomes are perceived as adding value for several purposes, as will be outlined in the following chapters. However, they are not to be taken for granted: any benefits eventually depend on the way learning outcomes are understood, defined, written, and applied. The learning outcomes approach supports learners' assessment by clarifying the criteria for success/failure and performance. While most frequently linked to summative assessments, learning outcomes can help with formative assessment throughout the learning process.

7.3 An overview of assessment in VET

The assessment literature has traditionally made a distinction between assessment for summative purposes and assessment for formative purposes.

- **Summative assessment**, or assessment of learning, aims to summarise learning that has taken place, in order to record, mark or certify achievements (EPPI, 2002). The goal of summative assessment is to evaluate learner learning at the end of an instructional unit by comparing it against some standard or benchmark.
- **Formative assessment**, or assessment for learning, aims to identify aspects of learning as it is developing in order to deepen and shape subsequent learning. Formative assessment helps learners identify their strengths and weaknesses and helps teachers and trainers support learner progress. Learning outcomes should be written in ways which also support formative assessment.

Designing assessments in a way that they are fit for the intended purpose is important to ensure their reliability, validity, transparency, usability and impartiality.

- **Validity:** refers to how accurately a conclusion, measurement, or concept corresponds to what is being tested. It is defined as the extent to which an assessment accurately measures what it is intended to measure.
- **Reliability:** refers to the extent to which the assessment is consistent in measuring what it sets out to measure. An exceptionally reliable assessment ensures that the assessment is accurate and not influenced by the particular assessor or assessment occasion.
- **Transparency:** information, rules and regulations on assessment should be clear, accurate, consistent, and accessible to all staff, learners, teachers, trainers, examiners that are taking part into the assessment process.
- **Usability:** refers to how policy makers, school leaders, teachers, parents and learners make sense of and respond to assessment results.
- **Impartiality:** assessment is not based on the grounds of race, gender and does not disadvantage candidates. It also means that personal views of the assessor have not influenced the assessment.

Ensuring appropriate definition and use of learning outcome-based standards is of key importance to assessment. In addition to teaching and learning process, learning outcomes constitute a common reference for assessment, clearly defining what and how is to be assessed. They enable harmonisation in assessing learners' performance.

The formulation of learning outcomes and their assessment and certification are elements of the same cycle. Below a basic model of feedback mechanism between VET and labour market is presented.

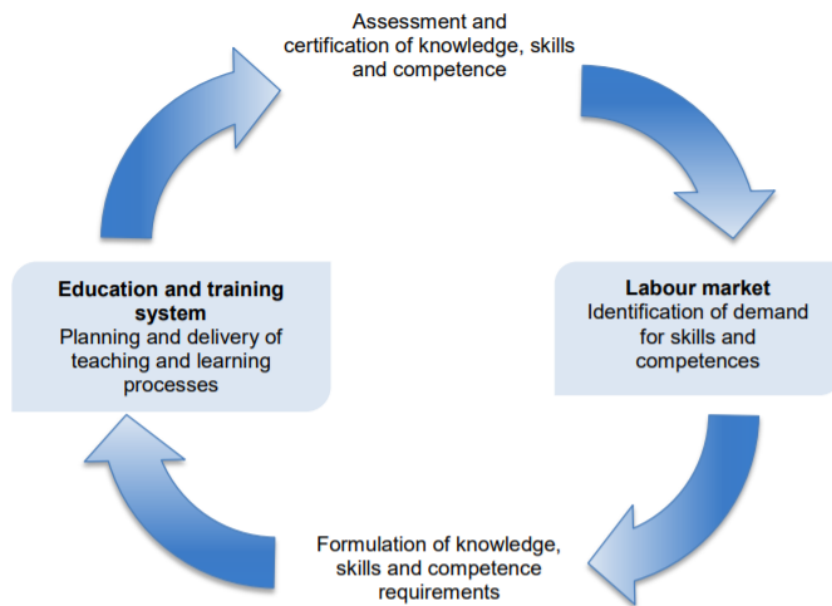


Figure 2 Feedback mechanism between VET and labour market – Source Cedefop 2013

Appropriate assessment methods and procedures are used to check if the learning outcomes have been achieved. The alignment between learning outcomes, teaching, learning and assessment helps to make the overall learning experience more coherent, transparent and meaningful for learners, and all other stakeholders.

7.4 The stages of the assessment process

The assessment process is comprised of the following Stages:

Stage 1: Establishing expected learning outcomes for the courses;

Stage 2: Create or choose teaching/learning activities.

Stage 3: Create assessment tasks.

Stage 4: Transform judgements into standard grading criteria.

Stage 5: Review of the process.

The evidence/assessment of learner learning is used to:

1. Provide feedback to learners about their learning and
2. Adjust the teaching methods and/or learners' learning behaviours to ensure greater learner learning.

7.5 Assessment methods

Effective assessment methods put the learner at the center, are carefully planned and aligned with learning goals.

Assessment methods are tools and techniques used to determine the extent to which the stated learning outcomes are achieved. Assessment methods (also called techniques or instruments) include both direct and indirect approaches. A further distinction that may be made is between quantitative methods that rely on numerical scores or ratings and qualitative methods that rely on descriptions rather than numbers.

In general, methods of assessment can include the following:

- Unseen examination, with or without choice questions;
- Open-book examination;
- Examination where information is provided in advance;
- Multiple-choice questions;
- Coursework assignment;
- Assessment questionnaire;
- Online quiz;
- Written report;
- Presentation;
- Oral examination;
- Assessed report, dissertation or thesis;
- Self- and peer assessment;
- Group assessment

7.6 Learners' self-assessment

- Self-assessment is a relevant method to assess and evaluate quality, to ensure and develop quality at system and provider levels. It may cover one, several or all of the factors that have an impact on the quality of VET provision, including organisation of the VET system/institution, mechanisms and resources, pedagogical expertise, as well as relations with external environments.
- Self-assessment is defined as 'the involvement of learners in making judgements about their achievements and the outcomes of their learning' and is a valuable approach to supporting student learning, particularly when used formatively. Self-assessment supports student learning and is one of the most important skills that students require for future professional development and life-long learning, as it develops their capacity to be assessors of learning.
- There are several different purposes of self-assessment: to evaluate understanding of the content, to demonstrate the achievement of outcomes and goals and the self-development of the learner. These three aspects of self-assessment are all inter-linked and will receive different emphases at different times during the process of learning.

- Self-assessment is the assessment of learners by themselves. In order to perform meaningful self-assessment, you need to give students clear criteria by which they can assess themselves. This could be in the form of a scoring rubric. Once the students possess clear and written performance criteria, they can continuously assess their own performance and make improvement. Almost all self-assessment is formative in purpose.
- Self-assessment helps VET providers analyse their responses to these challenges and provide adequate feedback on areas needing change. At system level, self-assessment helps improve good governance which is necessary to provide adequate statutory provisions, allocate necessary resources, check results and provide feedback in due time, enabling VET providers to respond and carry out necessary changes.

8 A practical guide

While developing assessment criteria and procedures it should be ensured that behavioral verbs within learning outcomes are well linked to them. It is important that each assessment not only reflects learning outcomes, but that the assessment is targeted at the complexity level of learning outcomes.

It is also important to choose suitable assessment tools for the learning outcomes, such as: exercise, quiz, exam, demonstration, project, paper, report, presentation, team participation, homework, etc. Some learning outcomes may be assessed by using a combination of assessment tools.

- In order to align learning outcomes to assessment, the below questions should be taken into consideration:
- How will I know if my students have achieved the desired learning outcomes?
- How will I measure the extent to which they have achieved these learning outcomes?
- How can we design our examination system so that it tests if learning outcomes have been achieved?
- Have we included a good balance of learning outcomes in our modules? (e.g. Bloom's Taxonomy)
- How do we know if students have achieved the intended learning outcomes: is there a good match between learning outcomes and assessment?
- How can we improve assessment so that it tests the intended learning outcomes?
- When writing learning outcomes the verb is often a good clue to the assessment technique.

Assessment should be:

- Learner centred: inclusive, acknowledging diversity;
- Linked to learning outcomes;
- Linked to performances of understanding or active learning methods;
- Multiplicity of modes, techniques, formats to suit different learners;
- Transparent, fair and equitable to all users;
- Valid, authentic and reliable.

8.1 Using different kinds of assessment methods in VLE

In recent years, the potential of information and communication technologies (ICT) to influence and shape assessment approaches has been increasingly recognised across European countries. While the systematic use of ICT to transform central assessment systems is still limited, many public and private actors are increasingly investing in research and development in this area.

These programmes use natural-language processing, artificial intelligence and/or information retrieval technologies to detect textual features of essays (for example, variety in use of syntax, quality of content and

organisation of ideas). These ICT models are still in the relatively early stages of development however, and while they may facilitate scoring of large-scale assessments, cannot replace human raters.

8.2 Practical Assignments

Practical assignments are linked to the assessment and will be designed on the learner level or to a group of learners and could include *case studies*, *problem solving situations* etc. The general idea is that the **practical assignments should help enhance the quality of learning**.

For each of the two curricula, multiple practical assignments will be developed customized and adjusted:

Practical assignments may include activities such as:

- **Case Study:** Case study is an extensive example describing an actual case where the learner examines what he / she has learned in practice. It starts with a description of the facts of the case, followed by a critical analysis of how it was implemented in practice what the learner learned, and a description of alternative ways of dealing with the situation.
- **Problem solving:** Problem solving focuses to the presentation of a real or hypothetical problem of direct interest to the learners, involving them in their analysis and in finding solutions, urging them in parallel to work out ways to implement the solution they have chosen.
- **Text composition:** The text composition activity describes a subject and asks the learners to study and criticize texts – that are provided to them, or they asked to search for them and choose – in order to compose their own documented text for the description / analysis / interpretation / processing of the topic under study.
- **Open type question:** An open-ended question that usually requires a wider and more complex treatment for its response than a question in self-assessment exercises.

For activities, there is no single correct answer (or course of action of the learner) accepted for all learners. It is neither possible for the author of the material to provide all the possible answers and all the possible mistakes of the learners, in order to discuss them under a template answer. This is the main difference between activities and self-assessment exercises.

The above, of course, does not mean that the activities must stay unanswered by the author. The author of the material should always provide a typical correct answer or provide the key points of subjects or sentences a correct answer should include, when this is not possible, a description of the actions the learner should follow in order to implement correctly the activity.

The template for developing the FOODI Practical Assignments is presented in the Appendix.

8.3 Application of assessment methods in FOODI

The assessment standards document has the scope of a practical guide for the Asian HEIs, ensuring that the applied assessment methods aiming at measuring the performance of learners will be based on learning outcomes and will relate to a particular occupational standard.

The assessment standards and methods that are developed in line with the learning outcomes approach have two major objectives:

1. Firstly, to **provide a verification** that the learner at the end of the learning process has achieved the expected learning outcomes (LOs);
 2. Secondly, to serve as a **review mechanism** and to be part of the of the quality improvement cycle of the curricula.
- Quizzes consisting of a number or questions that can be categorized in:
 - **Open-ended questions** which are hard to assess automatically, but can be used to initiate some individual activity (e.g. read this article and comment...) or some group activity (e.g. after reading this article, join the forum discussion about the “X” topic and present your opinion).
 - **Closed-ended questions** which are ideal for an automated assessment. The most common types of this kind of questions are: Multiple Choice Questions (MCQ), fill-in-the-blank, matching, yes/no (or true/false), drag and drop into text, drag and drop onto image etc.
 - **Practical Assignments (as above)**

8.4 Success rate

Further to the analysis of the FOODI assessment, in order for a learners to have successfully completed the course (s)he has taken, a percentage of 60% should have been accomplished.

Should (s)he succeeds, (s)he will be able to directly download his/her certificate from the FOODI VLE.

To succeed the percentage, the grade is to fulfill will be 40% from the quizzes and 60% from the practical assignments.

9 The role of the trainers and material review

Following the completion of the educational material of the FOODI Professional Training courses, a final review will be needed, assuring that the content is ready to be uploaded to the FOODI VLE platform.

The review will be made on a partnership level. Each Asian HEI will assume the role of reviewing one developed course and provide any comments it deems important.

Following the review, the material will be ready for upload to the FOODI VLE by ReadLab.

9.1 Trainers

During the piloting of the Courses, the learners will be available to contact a trainer from the Asian HEI that developed the material in order to ask him/her questions or require guidance for the practical assignments.

From their side, the trainers will:

- The trainer will be able to monitor the progress of the learners on a regular basis, taking corrective actions, making adjustments or resolving issues of concern on time;
- The trainer will observe in practice the progress of the learner and how the theoretical knowledge he/she has gained is transformed into professional skillset. This will offer them a sense of continuity and enhance their feeling of gratitude for their work;
- The trainer will be asked to post in the VLE forum and engage conversation between the learners as well as to report back to the FOODI partnership any potential issues for correction and mitigation.

9.2 Identification of learners

The FOODI Professional Training courses will run 4 times in the third year of the FOODI project.

To this end, the Asian HEIs will identify potential businesses of the sector willing to promote the project within their working environment in order to engage their staff in the offered classes.

In addition, the FOODI partnership and the Asian HEIs will promote the courses via promotional events in social media and events, aimed to identify both businesses willing to host the FOODI internships but also food sector professionals willing to upgrade their competencies.

10 Conclusions

The current document was set to be used as a methodological guide for the FOODI Professional Training Courses.

Within the framework of the FOODI project, each Asian partner HEI will develop 1 new professional training course tailor made to the training needs of the regional food industry and special characteristics of their region resulting to a total of 10 new professional training courses that will be created.

The new professional training courses will use the input from D1.3 of WP1 in order to become targeted to local needs. The professional training courses will run in 4 rounds in the third year of the project and is expected to attract 5 professionals from local businesses per round (i.e. a total of 20 participants per Asian HEI).

11 Timeframe

After analysing all relevant aspects of the development of the educational material, a Gantt chart follows, including only the relevant to the curricula design / development tasks, to enable partners to have a clear view of which are the remaining actions that are going to be implemented:

As it is obvious in the *Gantt chart*, the partnership of the FOODI project is entering a critical period for the implementation of the project. In consequence, all partners should respect deadlines and give their bet in the forthcoming months.

Design of FOODI Professional Training Courses	2020						
	Apr	May	Jun	Jul	Aug	Sep	Oct
WP2 Design of FOODI Professional Training Courses							
Design of FOODI Tables							
Development of Training Material							
Material Review							
1st round of Piloting							

Annex 1. Templates

➤ Table_1A: Module Description

Table_1A: MODULE DESCRIPTION	
Module title	<i>Title of the module</i>
Module code	<i>[code to be given by AMC & Readlab]</i>
Module description	<i>Description of the module (up to 100 words)</i>
Knowledge domain	<i>Knowledge domain of the module</i>
Learning objectives	<i>Learning objectives for the specific module</i>
Module schedule	<i>Please fill in Table_1B.</i>
Assessment method	<i>Description of the assessment for the specific module</i>

➤ Table_1B: Module Schedule

Table_1B: MODULE SCHEDULE			
<i>Module Code</i>	<i>Unit Code</i>	<i>Unit title</i>	<i>Unit Description</i>

- Table_2A: Unit Description
- Please fill in this table for each course Unit:

Table_2A: UNIT DESCRIPTION	
Unit title	<i>Title of the Unit</i>
Unit code	<i>Code of the Unit</i>
Unit description	<i>Description of the Unit (learning activity) (up to 100 words)</i>
Educational strategy	<i>Presentation, role playing, case study etc.</i>
Learning outcomes (LOut)	<i>Learning Outcomes for the specific unit</i>
Unit core material's Learning Objects (LO)	<i>List of Learning objects (videos, presentations, etc.) included in the specific unit</i>
Unit additional material	<i>List of additional material (e-books, additional readings, etc.)</i>
Assessment objects	<i>Detailed description of the learners' assessment for the specific unit (projects, self-evaluation exercises, etc.)</i>
Unit schedule	<i>Description of the proposed schedule for the specific unit</i>
Key words	<i>Key words (3 to 10)</i>

➤ Table_2B: Learning Outcomes

They describe the knowledge / skills / competences (attitudes) that the student will develop after studying the document. They should be based on Bloom's taxonomy and specialize some of the learning outcomes of the module. Should be introduced as: After studying this resource, you will be able to: (followed by a list of outcomes). The list should not contain more than 10 outcomes; 5 is a good number.

Table_2B: LEARNING OUTCOMES	
Codes	Learning Outcomes
1. Knowledge level	
2. Comprehension level	
3. Application level	
4. Analysis level	
5. Synthesis level	
6. Evaluation level	

➤ Table_3A: Learning Object

After completing the previous Tables, please fill in this template for each learning object (LO) of every unit:

Table_3A: LEARNING OBJECT	
Learning object (LO) title	<i>Title of Learning object</i>
Learning object (LO) code	<i>A code for every Learning object</i>
Learning activity code	<i>Code of the Learning Activity</i>
Learning object (LO) description	<i>Description of the Learning object (up to 100 words)</i>
Learning recourse type	<i>Definition of the learning recourse type for the specific learning object (e.g. Guidelines, Presentation, Lecture, Theory, Example, Activity, Self-Assessment, Exercise etc.)</i>
Technical type	<i>Definition of the technical type for the specific learning object (e.g. Text, Image, Video/Audio, Application)</i>
Estimated study time (min)	<i>The estimated time needed for an average learner in minutes</i>
Key words	<i>Key words (3 to 10)</i>
Learning outcomes (LOut)	<i>Define the Learning Outcomes for the specific learning object (should include learning outcomes from the relevant unit)</i>
Extended description of Learning Object (LO)	<i>Describe the learning objects in detail</i>

- Table_3B: Practical Assignments
- Please fill in this table for each Practical Assignment:

Table_3B: PRACTICAL ASSIGNEMENTS	
Practical assignment title	<i>Title of the practical assignments</i>
Practical assignment code	<i>A code for every practical assignment</i>
Learning activity (unit) code	<i>Code of the Learning Activity</i>
Practical assignment description	<i>Description of the practical assignments (up to 100 words)</i>
Learning recourse type	<i>Definition of the learning recourse type for the specific practical assignments (e.g. Example, Case Study, Problem Solving, Text Composition, Question, Project)</i>
Technical type	<i>Definition of the technical type (document, video, wiki etc.) for the specific practical assignment)</i>
Estimated study time (min)	<i>The estimated time needed for an average learner in minutes</i>
Key words	<i>Key words (3 to 10)</i>
Learning outcomes (LOut)	<i>Define the Learning Outcomes for the specific practical assignment (should include learning outcomes from the relevant unit)</i>
Extended practical assignments description	<i>Provide the subject; describe the content of the practical assignment and the expected outcomes.</i>
Preparatory/Additional material	<i>Provide relevant materials needed to deal with the specific practical assignment</i>
Answer extension (word number)	<i>Expected range of words for the accepted answers</i>

- Table_3C: Assessment Object
- *Please fill in this table for each Practical Assignment:*

Table_3C: Learning Object (Assessment Object)	
Learning object title	<i>Title of the practical assignments</i>
Learning object code	<i>A code for every Learning object</i>
Learning activity code	<i>Code of the Learning Activity</i>
Learning object description	<i>Description of the Learning (Assessment) object (up to 100 words)</i>
Learning recourse type	<i>Definition of the learning recourse type: Activity (Example, Case Study, Problem Solving, Text Composition, Question), Self-Assessment or Exercise (Multiple Choice Questions, Open Type Question, Problem Statement)</i>
Technical type	<i>Text / Document</i>
Estimated study time (min)	<i>The estimated time needed for an average learner in minutes</i>
Key words	<i>Key words (3 to 10)</i>
Learning outcomes (Lout)	<i>Define the Learning Outcomes for the specific Learning Object (should include learning outcomes from the relevant unit)</i>
Quiz	<i>Use the template below to prepare questions</i>

Question Template	
Number	
Question	
Possible answers	
Correct answer	
Response to correct answer	
Response to wrong answer(s)	

➤ Table_3D: Transcripts

Please fill in this table for each Transcript used:

Table_3D: TRANSCRIPTS	
Module	<i>[Please add title]</i>
Unit	<i>[Please add title]</i>
Learning Object	<i>[Please add title]</i>
Author	<i>[Please add Name, Surname, Organisation]</i>
Technical Reviewer	<i>[Please add Name, Surname, Organisation]</i>
Scientific Reviewer	<i>[Please add Name, Surname, Organisation]</i>
Presenter	<i>[Please add Name, Surname, Organisation]</i>

FOODI course for the academics and new professional training course Architecture

FOODI course building blocks	Title	Description
Section/Module 1		Is the top level of the course and typically represent a time period (week).
Subsection/Lesson 1		it represents a topic or other organizing principle and is also called “lesson”
Unit 1		A unit contains one or more components, which represent the actual course content.: Videos, problems/quizzes, reading material, discussion forums.
Unit 2		A unit contains one or more components, which represent the actual course content.: Videos, problems/quizzes, reading material, discussion forums.
Unit ...		A unit contains one or more components, which represent the actual course content.: Videos, problems/quizzes, reading material, discussion forums.
Subsection/Lesson 2		
....		
Section/Module 2		
Subsection/Lesson 1		
Unit 1		
Unit 2		
Unit ...		
Subsection/Lesson ...		
....		

Annex 2. FOODI Completed Course Outlines

1	Course title	Food Science & Wellness
2	Course description	This course provides an overview of fundamental knowledge on food science and presence of nutrients in the food in order to promote wellness.
3	Knowledge domain	<ul style="list-style-type: none"> • Basic Food Science • Nutrition • Healthcare • Food processing
4	Course addressed to	<ul style="list-style-type: none"> • Academic professionals & Administrative staff • Graduates relevant to any of the above industries • Food processing Small and medium-sized enterprises (SMEs) and larger companies • Food entrepreneurs and & food industry professionals
5	Basic learning objectives	<p>At the end of this course, learners are able to:</p> <ul style="list-style-type: none"> • Understand the basic principles in food chemistry • Become proficient to the usage of food in diet and therapy • Demonstrate the safety and toxicity of food intake • Disseminate knowledge on food science and technology in their workplace
6	Course length	4 weeks
7	Course schedule (course modules codes, titles and description)	<p>W1: Food Chemistry</p> <p>W2: Food Processing</p> <p>W3: Nutriology – Science of Nutrition (The study of foods and their use in diet and therapy)</p> <p>W4: Food Safety and Toxicology</p>
8	Learners' profile	<ul style="list-style-type: none"> • SMEs working with Food Product / Food processing • Graduate students of related industries • Working professionals with a diploma qualification • NGOs and food related associations
9	Participation prerequisites	<ul style="list-style-type: none"> • Basic knowledge in food development / food chemistry / food processing / microbiology / nutrition / is desirable
10	Special needs from the educational environment	<ul style="list-style-type: none"> • Personal Computer / Laptop / Tablet • Access to the internet

1	Course title	New Food Product Development & Marketing
2	Course description	A food safety approach namely Hazard Analysis Critical Control Point (HACCP) study is often performed once a product reaches the manufacturing stage. This can be too late to iron out food safety problems without incurring the expense of product reformulation. The aim of this course is to show in practical terms how to apply appropriate design thinking and safety to New Product Development. Introductory sessions on HACCP are included to help those unfamiliar with the concept. This course is specifically designed for product development staff who want to understand how to use HACCP in NPD.
3	Knowledge domain	<ul style="list-style-type: none"> • Food science and technology • Computing • Marketing
4	Course addressed to	<ul style="list-style-type: none"> • Postgraduates • QA&QC Personnel • Food Technologists • R&D Executives • Production Supervisors/ Executives/ Managers, Regulatory Food Inspectors/ Auditors • Lab Technicians (chemical, physical, microbiological)
5	Basic learning objectives	<ul style="list-style-type: none"> • Understand the principles of food product safety • Know how to use HACCP in product development • Learn how ingredient quality, product type, formulation, processing, and manufacturing practices affect safety in foods • Be able to utilise HACCP to develop and produce safe new products for the market
6	Course length	A two-day training course
7	Course schedule (course modules codes, titles and description)	Day 1: <ul style="list-style-type: none"> • Food Safety and its relation to legislation, product development and food-borne hazards • Raw Material Issues and Sources of Supply (Traceability) • Product Design and Methods of Processing (Product Specification Development, Principles of and procedures for analysis of the chemical, physical and sensory properties of food, Principles of and procedures for analysis of the chemical, physical and sensory properties of food) • Marketing, Distribution Retailing and Consumer Issues Day 2: <ul style="list-style-type: none"> • Hands-on Lab Training for Sensory, Chemical & Physical Analysis OR <ul style="list-style-type: none"> • Workshops & Workshop presentations
8	Learners' profile	<ul style="list-style-type: none"> • SMEs working with Food Product and Food Security • Graduate students of related industries • Professionals involved in Food Safety , Food Quality, Food Production Systems • NGOs and food related associations
9	Participation prerequisites	<ul style="list-style-type: none"> • Relevant experiences in Food related fields • Basic knowledge on food production

10	Special needs from the educational environment	<ul style="list-style-type: none">• Personal Computer / Laptop / Tablet• Access to the internet
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1	Course title	Halal Food Assurance
2	Course description	This course is an introduction to halal food industry designed to give participants an understanding of halal food requirement and certification process.
3	Knowledge domain	<ul style="list-style-type: none"> • Basic fundamentals of Halal • Practices of Halal in food industry
4	Course addressed to	<ul style="list-style-type: none"> • Academic professionals & Administrative staff • Graduates relevant to food industries • Food processing Small and medium-sized enterprises (SMEs) and larger companies • Food entrepreneurs and & food industry professionals
5	Basic learning objectives	At the end of the course, the participants will be able to: <ul style="list-style-type: none"> • Acquire correct understanding of halal food requirement • Establish the correct practices of halal in the food industry • Describe the halal certification process
6	Course length	1 month 26 hours (5 hrs per module)
7	Course schedule (course modules codes, titles and description)	4 specifics courses 1. Introduction to Halal food 2. Halal Food Requirements 3. Understanding of Halal Food Industry 4. Halal Certificate Process 2 transferable competences courses 1. Halal management in food industry 2. Effective halal operation in food industry or 3. Internal Halal audit
8	Learners' profile	<ul style="list-style-type: none"> • SMEs working in Food industry • Graduate students of related industries • Food suppliers • NGOs and food related associations
9	Participation prerequisites	Basic food science knowledge & experience
10	Special needs from the educational environment	<ul style="list-style-type: none"> • Personal Computer / Laptop / Tablet • Access to the internet

1	Course title	Introduction to food safety
2	Course description	This online course will provide learners with basic knowledge of food safety in food manufacturing as well as food legislation and standards.
3	Knowledge domain	Cognitive domain on: <ul style="list-style-type: none"> • Science and technology • Food act and standard Affective domain: <ul style="list-style-type: none"> • Valuing
4	Course addressed to	<ul style="list-style-type: none"> • Academic professionals & Administrative staff • Graduates relevant to any of the above industries • SME or micro food business with no prior or minimal food safety knowledge • New employees with minimal or no prior food safety knowledge
5	Basic learning objectives	By the end of the course, the learners should be able to: <ul style="list-style-type: none"> • Identify food safety hazard in the workplace • Evaluate the severity of hazards in the workplace. • Supply food safety procedure based on related law and standards • Share the important of food safety to others employee.
6	Course length	5 hours (module 1)
7	Course schedule (course modules codes, titles and description)	Chapters: <ol style="list-style-type: none"> 1. Hazard identification 2. Food safety and quality 3. Food safety and law 4. Leadership 5. Critical thinking
8	Learners' profile	<ul style="list-style-type: none"> • SME or micro food manufacturing owner or employee • No background in food study • Diploma or at least 2 years in food industries
9	Participation prerequisites	Working in food industry for at least 6 months
10	Special needs from the educational environment	<ul style="list-style-type: none"> • Personal Computer / Laptop / Tablet • Access to the internet

1	Course title	Food Product Development and Innovation
2	Course description	This course addresses the needs of professionals/employees working in the food industry and food-related areas and (graduates who have background or experiences in food science and technology and food-related fields who would like to develop innovative food products via the concepts of product development and innovation to meet the consumers' needs.
3	Knowledge domain	<ul style="list-style-type: none"> • Food science and technology • Marketing/business administration
4	Course addressed to	<ul style="list-style-type: none"> • Academic professionals & Administrative staff • Graduates relevant to any of the above industries • Food processing Small and medium-sized enterprises (SMEs) and larger companies • Food entrepreneurs and & food industry professionals
5	Basic learning objectives	Upon completion of this course, the learners will: <ul style="list-style-type: none"> • Be able to develop innovative food products to meet the consumers' needs • Be able to implement the process and technology design for safe food products with the required quality • Improve their creativity and critical thinking skills
6	Course length	3 weeks
7	Course schedule (course modules codes, titles and description)	Week 1: Module 1: Product Development concept and process Module 2: Process and technology design Week 2: Module 3: Sensory evaluation for Product Development Module 4: Quality and safety of food products Week 3: Module 5: Marketing and entrepreneurship Module 6: Creativity and critical thinking
8	Learners' profile	<ul style="list-style-type: none"> • SMEs working with Food Product and Food Security • Graduate students of related industries • Industry related employees • NGOs and food related associations
9	Participation prerequisites	<ul style="list-style-type: none"> • Knowledge on Food Science and Food Technology • Experience on Food related fields
10	Special needs from the educational environment	<ul style="list-style-type: none"> • Personal Computer / Laptop / Tablet • Access to the internet

1	Course title	Food Quality Management
2	Course description	Food quality is essential for human beings. As an entrepreneur, food quality management is still important in food industry. In this course, the participants will learn about the quality management (QM) and the statistical tools to monitor and assess the quality of food. This QM program is commonly used by many industries to maintain and improve the quality of their products and services.
3	Knowledge domain	<ul style="list-style-type: none"> • Food science and technology • Food business management • Agricultural Industry
4	Course addressed to	<ul style="list-style-type: none"> • Academic professionals & Administrative staff • Graduates relevant to any of the above industries • Food processing Small and medium-sized enterprises (SMEs) and larger companies • Food entrepreneurs and & food industry professionals
5	Basic learning objectives	<ul style="list-style-type: none"> • To discuss the basic principles of quality management programs and how they are applied in industrial setting • To apply statistical quality techniques for maintaining safety and quality in food and bioprocessing materials and products • To analyze statistical data using statistical analysis software and interpret the output in terms of quality management
6	Course length	<ul style="list-style-type: none"> • 3 Weeks
7	Course schedule (course modules codes, titles and description)	<ul style="list-style-type: none"> • W1: Introduction to Quality Management (QM) and QM program • W2: Data collection and Statistics used in QM • W3: Course wrap-up and Project presentation.
8	Learners' profile	Chemistry, Food Chemistry , Biology, Statistics, Agro-industry, Food science, Food technology, Agronomy, Animal science
9	Participation prerequisites	<ul style="list-style-type: none"> • Food related fields • Ex statistics • computer skills
10	Special needs from the educational environment	<ul style="list-style-type: none"> • Personal Computer / Laptop / Tablet • Access to the internet

1	Course title	Food Supply Chain Management (FSCM)
2	Course description	The course aims to Introduce the concept of food supply chain or food system and the overall challenges and issues in each stage of the food supply chain The role of the main factors influencing the food supply chain management and its sustainability will be addressed, and different management strategies to tackle the issues in food supply chain will be analysed.
3	Knowledge domain	<ul style="list-style-type: none"> • Food science and technology • Industrial management • Logistics and supply chain • Agricultural Industry
4	Course addressed to	<ul style="list-style-type: none"> • Academic professionals & Administrative staff • Graduates relevant to any of the above industries • Food processing Small and medium-sized enterprises (SMEs) and larger companies • Food entrepreneurs and & food industry professionals
5	Basic learning objectives	<ul style="list-style-type: none"> • Understand the key aspects of the food supply chain from a management & social perspective • Understand food supply chain stages (challenges & supporting mechanisms) → from farmer to consumer • Identify the food supply chain: production, manufacturing, food regulation, safety and quality • Understand the importance of food processing • Identify challenges to the future of food retailing as well as international food supply chains
6	Course length	4 weeks
7	Course schedule (course modules codes, titles and description)	<ul style="list-style-type: none"> • W1: Basic food logistics • W2: Supply chain Management • W3: Food chemistry & Food Quality • W4: Food safety & Food regulation
8	Learners' profile	<ul style="list-style-type: none"> • SMEs working with Food Product and Food Security • Graduate students of related industries • Supply chain / logistics professionals • NGOs and food related associations
9	Participation prerequisites	<ul style="list-style-type: none"> • Knowledge on Food Production and Food Security • Experience on Food Production and Food Security
10	Special needs from the educational environment	<ul style="list-style-type: none"> • Personal Computer / Laptop / Tablet • Access to the internet

1	Course title	Food Product Development and Nutrition Security - FPD & NS
2	Course description	The course will provide deeper knowledge and expertise to the learners/participants on food product development and nutrition security; Learner/participants will learn some crucial topics related to food security, food industries, global economic crisis on food, factors that are effect on food security.
3	Knowledge domain	<ul style="list-style-type: none"> • Food science and technology • Industrial management • Computing • Agricultural Industry
4	Course addressed to	<ul style="list-style-type: none"> • Academic professionals & Administrative staff • Graduates relevant or not to the industry • Food processing Small and medium-sized enterprises (SMEs) and larger companies • Food entrepreneurs and & food industry professionals
5	Basic learning objectives	<ul style="list-style-type: none"> • Gain expertise in assessing household food securely • Gain expertise in developing secure food products in public • Gain expertise to judge public food places/ products concerning their safety / nutrition • Understand and explain efforts to achieve resilient food • Understand the tools and methods used to analyse food security • Acquire soft skills in communication, teamwork, facilitation
6	Course length	1 Month - 6 Modules (4 Specific Modules, 2 Transferable Competences)
7	Course schedule (course modules codes, titles and description)	<ul style="list-style-type: none"> • Module 1: Food Processing Technology • Module 2: Food Safety • Module 3: Bio-technology in Food Production • Module 4: Risk analysis in Food Production • Module 5: Production of semi-industry products • Module 6: Production of industry products
8	Learners' profile	<ul style="list-style-type: none"> • SMEs working with Food Product and Food Security • Graduate students of related industries • Industry related workers • NGOs and food related associations
9	Participation prerequisites	<ul style="list-style-type: none"> • Knowledge on Food Production and Food Security • Experience on Food Production and Food Security
10	Special needs from the educational environment	<ul style="list-style-type: none"> • Personal Computer / Laptop / Tablet • Access to the internet

1	Course title	Innovations in Safety, Quality and Sustainability in Food Production
2	Course description	This course will teach the professionals/policy developers/consultants/extension workers about the problems as well as provide the solutions associated with the food quality, hygiene as well as waste management towards the sustainability. It will upgrade the skills and knowledge for the innovative and quality food ingredients, innovative hygienic design, and waste management at the industrial processes. The course will upgrade and provide current local and global practices towards food safety and quality standardization and regulations throughout the food supply chain systems.
3	Knowledge domain	<ul style="list-style-type: none"> • Food Industry • Food Production • Quality Assurance • Food Sustainability
4	Course addressed to	<ul style="list-style-type: none"> • Academic professionals & Administrative staff • Graduates relevant to any of the above industries • Food Production, Quality Control and Quality Assurance, Environmental Management • Policy developers • Food entrepreneurs and & food industry professionals • Food safety auditors, Consultants
5	Basic learning objectives	<ul style="list-style-type: none"> • To provide the professionals with knowledge on the need for greater quality assurance, and standardization in the food production systems • To emphasize in food quality control as the mechanism for the prevention of food-borne illness and food spoilage throughout the food supply chain systems • To provide the knowledge on sustainability especially waste management during the process and supply chain systems
6	Course length	4 weeks (40 hours)
7	Course schedule (course modules codes, titles and description)	<ol style="list-style-type: none"> 1. Innovations in food quality ingredients 2. Food Quality Management Systems (FQMS) 3. Food Safety Management Systems (FSMS) 4. Sustainability in context of Waste management including regulations throughout food supply chain systems
8	Learners' profile	<ul style="list-style-type: none"> • SMEs working with Food Product and Food Security • Graduate students of related industries • Professionals involved in Food Safety , Food Quality, Food Production Systems • NGOs and food related associations
9	Participation prerequisites	<ul style="list-style-type: none"> • Minimum Undergraduate level in specific subjects; or having Industrial relevant experiences on Food related fields • Basic knowledge on food production
10	Special needs from the educational environment	<ul style="list-style-type: none"> • Personal Computer / Laptop / Tablet • Access to the internet

1	Course title	Food Safety and Food Quality
2	Course description	This training course will address the needs of professionals working in the food sectors or fresh graduates who would like to extend their knowledge in food safety and food quality. It will address quality control techniques, understanding food safety and food quality management systems as well as team work and knowledge transferring in food related environments.
3	Knowledge domain	<ul style="list-style-type: none"> • Food safety management • Food quality control • Food processing
4	Course addressed to	<ul style="list-style-type: none"> • Academic professionals & Administrative staff • Graduates relevant to any of the above industries • Food processing Small and medium-sized enterprises (SMEs) and larger companies • Food entrepreneurs and & food industry professionals
5	Basic learning objectives	<ul style="list-style-type: none"> • Operate basic food safety and quality control • Identify, analyze, predict, and prevent the problems in their food processing practices • Implement food safety and food quality management systems • Communicate, work in team, and transfer knowledge in food related industries
6	Course length	4 weeks
7	Course schedule (course modules codes, titles and description)	Week 1: Quality and safety of food products Week 2: Product Development - safety & food quality management systems Week 3: Food processing practices (identify, analyze & prevent problems) Week 4: Assessment/Evaluation
8	Learners' profile	<ul style="list-style-type: none"> • SMEs working with Food Product and Food Security • Graduate students of related industries • Food suppliers • NGOs and food related associations
9	Participation prerequisites	<ul style="list-style-type: none"> • Knowledge on Food Science and Food Technology • Experience on Food related fields • Basic knowledge in food chemistry/food processing/microbiology/hygiene and sanitation desired
10	Special needs from the educational environment	<ul style="list-style-type: none"> • Personal Computer / Laptop / Tablet • Access to the internet