



D3.3

Instructional Design documents of five localized curricula and five pilot courses

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1 ABSTRACT:

This document reports about the activities carried out in T3.3 in order to design the five pilots which will be implemented in WP5. It includes the design documents produced by pilot leaders, which include for each pilot: (a) the instantiation of the “general Curriculum” in a “localized curriculum”, in terms of modules, a selection of LOs, learning strategies, assessment strategies, credits, etc. and the definition the most appropriate delivery methodologies for the curriculum; (b) the detailed design of the specific pilots.

2 KEYWORDS:

Chef Gastro-Engineer, pilot design, curriculum, localization, design documents, ECVET points

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1	Barbara Mazzarino - SI4LIFE Serena Alvino - SI4LIFE Elena Margherita Vercelli – SI4LIFE	A	01/02/2022	Release of DK7 - Flexibility Tool
1	Olga Pedemonte - MARCO POLO Matilde Borriello – MARCO POLO Roberto Solinas – MARCO POLO Simona Signorelli – MARCO POLO Lorenzo Sciarpa – MARCO POLO Girolamo Pugliese – MARCO POLO Elisabetta Garbarino – ALFA LIGURIA Romano Calvo – Alfa Liguria Serena Alvino - SI4LIFE Elena Margherita Vercelli – SI4LIFE Valentina Compiani – ITS-BACT Gerardo De Paola – REGIONE CAMPANIA Mariapia Ponticelli - ITS-BACT Regione Liguria	A	01/03/2022	Online meeting between Italian partners to decide on a common organisation of Italian pilots
1	Olga Pedemonte - MARCO POLO Matilde Borriello – MARCO POLO Roberto Solinas – MARCO POLO Simona Signorelli – MARCO POLO Lorenzo Sciarpa – MARCO POLO Girolamo Pugliese – MARCO POLO Elisabetta Garbarino – ALFA LIGURIA Serena Alvino - SI4LIFE	A	04/03/2022	Online meeting between Italian partners to decide on a common organisation of Italian pilots. First release of the completed Flexibility Tools of ITS BACT and MARCO POLO.

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3	Serena Alvino - SI4LIFE Elena Margherita Vercelli – SI4LIFE	A	25/03/2022	First template for D3.3
4	Serena Alvino - SI4LIFE Elena Margherita Vercelli – SI4LIFE	A	29/03/2022	Second release of Course Syllabus
4	Matilde Borriello – MARCO POLO Elena Margherita Vercelli – SI4LIFE	A	29/03/2022	Release of a document containing a list of discipline sectors to help partners complete their course syllabuses.
5	Olga Pedemonte - MARCO POLO Matilde Borriello – MARCO POLO	A	March-April 2022	Release of progressive versions of the partners' localized curricula (flexibility tools + descriptions) and course syllabuses.

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6	Serena Alvino - SI4LIFE Elena Margherita Vercelli – SI4LIFE	A	March-April 2022	Progressive review and integration of partner contributions in D3.3.
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7	Ana Isabel Silva- SCMA Maria Lopes da Silva - SCMA	A	12/05/2022	Final release of the completed Localized curriculum (flexibility tool + description) of SCMA.
7	Regina Roller-Wirnsberger - MUG Carolin Herzog - MUG	A	12/05/2022	Final release of the completed Localized curriculum (flexibility tool + description) and course syllabus of MUG.
7	Valentina Compiani – ITS-BACT Mariapia Ponticelli - ITS-BACT	A	12/05/2022	Final release of the completed Localized curriculum (flexibility tool + description) of ITS BACT.
7	Olga Pedemonte - MARCO POLO Matilde Borriello – MARCO POLO Roberto Solinas – MARCO POLO Simona Signorelli – MARCO POLO Lorenzo Sciarpa – MARCO POLO Girolamo Pugliese – MARCO POLO	A	12/05/2022	Final release of the completed Localized curriculum (flexibility tool + description) of MARCO POLO.

7	Olga Pedemonte - MARCO POLO Matilde Borriello – MARCO POLO Roberto Solinas – MARCO POLO Simona Signorelli – MARCO POLO Lorenzo Sciarpa – MARCO POLO Girolamo Pugliese – MARCO POLO	A	20/05/2022	Final release of the completed course syllabus of MARCO POLO.
7	Valentina Compiani – ITS-BACT Mariapia Ponticelli - ITS-BACT	A	20/05/2022	Final release of the completed course syllabus of ITS BACT.
7	Ana Isabel Silva- SCMA Maria Lopes da Silva - SCMA	A	20/05/2022	Final release of the completed course syllabus of SCMA.
8	Serena Alvino - SI4LIFE	A	20/05/2022	Completion of the missing sections of D3.3
9	Serena Alvino - SI4LIFE Elena Margherita Vercelli – SI4LIFE Roberta Ferrara – SI4LIFE	A	May 2022	Progressive review and integration of partners' contributions in D3.3.
10	Elena Margherita Vercelli – SI4LIFE Roberta Ferrara – SI4LIFE	A	23/05/2022	Final review and integration of partners' contributions in D3.3.
11	Gerardo De Paola – Regione Campania	IF	27/05/2022	Internal Peer-Review of the Report
12	Serena Alvino - SI4LIFE Elena Margherita Vercelli – SI4LIFE Roberta Ferrara – SI4LIFE	A	31/05/2022	Final integration after the review of the external reviewer (Herman Vandevijvere)

*Status indicates if:

- A - Author (including author of revised deliverable)
- C - Contributor
- IF – Internal Feedback (within the partner organization)

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6 EXECUTIVE SUMMARY

This document reports about the activities carried on in T3.3 in order to design NECTAR's pilot courses.

An **Introduction** (Section 7) outlines the main connections of T3.3 activities with the other tasks of WP3 and the other WPs of the project.

Then, **Section 8** describes NECTAR's approach to Instructional Design, providing a link to the state of art in literature about Instructional Design and depicting the solution identified for the project.

Section 9 describes how the work has been organized by task leader among partners in order to produce the design documents included in the report.

Then Section 10, 11, 12, 13 and 14 include the contributions provided by each pilot leader in terms of:

- textual description of the Flexibility Tool (describing the Localized Curricula);
- Part A of the Course Syllabus template, depicting many design elements of future pilots.

Annex 1 includes Part B of the Course Syllabus template which will be completed by partners in the framework of WP5.

7 INTRODUCTION

In the first 18 months of the project, partners delivered two important results:

- the first release of the EU Curriculum for CGE (D3.1.1);
- the first release of the Tools and Guidelines (namely Designers' Kit), supporting the localization of the EU Curriculum (D3.2.1).

The effectiveness of these two important results has been tested in T3.3 by localizing the Curriculum into 4 different countries (Italy, Portugal, Belgium and Austria) and by designing 5 different pilot courses. T6.2 is aimed to collect feedback from partners about the perceived effectiveness of the above-mentioned results in order to support their refinement and their final release at M35.

So, Task 3.3 is aimed at delivering the design of the above-mentioned pilots, through two main activities performed by partners (see Figure 1):

- a) the Designers' Kit provided in T3.2 assured an effective instantiation of the "general Curriculum" into five "localized curricula", which are an "intermediate result" in the progressive design of the course, where the general curriculum is localized in terms of modules, a selection of LOs, learning strategies, assessment strategies, credits, etc.
- b) then "localized curricula" have been furtherly detailed in the "pilot courses design"; at this stage, specific design elements concerning the courses (which will be implemented in WP5) have been defined.

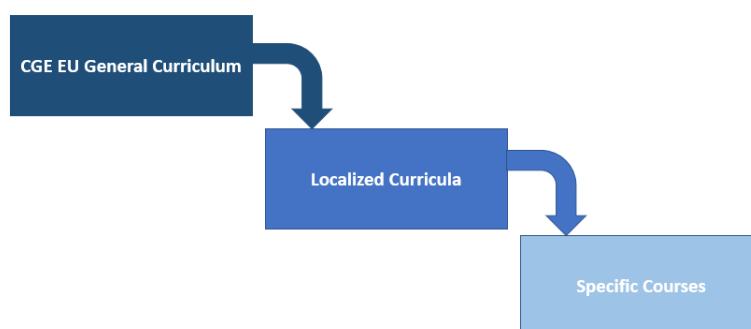


Figure 1: a representation of the "Curriculum instantiation process"

Pilot courses will be implemented in WP5 under the leadership of five “pilot-leaders”:

- Marco Polo (MP), leading the pilot in Liguria Region (IT);
- FONDAZIONE ITS BACT (ITS-BACT), leading the pilot in Campania Region (IT);
- University of Graz (MUG), leading the pilot in Austria;
- Santa Casa da Misericórdia de Albufeira (SMCA), leading the pilot in Portugal.

The task leader, SI4LIFE, collaborated with “pilot-leaders” in order to design the localized curricula and the pilots, starting from the EU Curriculum and using the Designers’ Kit.

8 NECTAR’s approach to Instructional Design

Instructional Design is defined by Reigeluth et al. [2003] as “*that branch of knowledge concerned with theory and practice related to instructional strategies and systematic procedures for developing and implementing those strategies*” (p.574). Different models for ID development have been proposed in literature [Clark, 1995; Doty & Beckschi, 2000; Willis, 1995; Tripp and Bichelmeyer 1990], providing teachers and designers with conceptual tools fostering the modelling, structuring and management of a learning process. ID models may support the sharing of best practices and they also allow meta-analysis and evaluation of the design process itself. Traditional ID models are based on the Instructional System Design (ISD) or ADDIE model [Clark, 1995; Doty & Beckschi, 2000]: although we could identify at least 13 versions of the ADDIE model, each of them is characterized by a “cascade” sequence of design steps (*Analysis, Design, Development, Implementation, Evaluation*) and by the fact that the output of each design phase is the input of the following one.

In the last years, several authors [Silber, 2007; Jonassen, 2012] have criticized the conventional linear and procedural ID models, as well as other recursive and spiral-based models [Tripp & Bichelmeyer, 1990], arguing that ID as practiced by expert designers is not a procedure, but a **problem-solving process**. In addition, other critics to ADDIE models argue that **ID is an iterative process of decision-making and model-building** [Jonassen, 2012]. The principal role of a designer is to make decisions which help bridge the gap between ideas and reality. These decisions are taken all along the ID process, which proceeds through a **progressive localization** and introduction of constraints, guided by those heuristics and good practices which are held to be effective for a particular problematic situation [Alvino & Trentin, 2011; 2012].

Tessmer & Wedman¹ developed a very practical approach to ID named “*Layers-of-Necessity Instructional Development Model*”. According to this model, the ID process can be carried out through a **number of progressive layers**: the main design steps are progressively repeated to a greater degree of precision and sophistication in subsequent layers of the process itself. Based upon the time and resources available to the designer, he/she can choose a layer of design matched to the necessities of the process: for situations characterized by severe time and resource limitations, only the simplest layer of design may be possible; for situations with more time and resources, a more sophisticated layers may be used.

NECTAR project is aimed to deliver an EU reference general Curriculum which could be instantiated into different countries based on their contextual elements and needs. Such characteristics of the Curriculum imply the need to adopt a progressive approach to design, based on “*localization steps*”. The EU Curriculum focuses on the Learning Outcomes, providing suggestions about the possible learning strategies, the methods of the assessment and a range for the identification of the

¹ Tessmer, M. & Wedman, J.F. (1990). “A Layers-of-Necessity Instructional Development Model”, Educational Technology Research & Development, 38(2), 77-85.

awarded ECVET points. So the Curriculum sets some ID elements to a higher degree of definition leaving to further processes of localization a deeper degree of precision and sophistication.

Based on these premises the “*Layers-of-Necessity*” ID Model [Tessmer & Wedman, 1990] has been evaluated as the best approach to be adopted in NECTAR in order to support pilots design: each layer integrates the decisions taken by the highest layers with “localized” decisions, adopting a problem-solving approach (Figure 2)

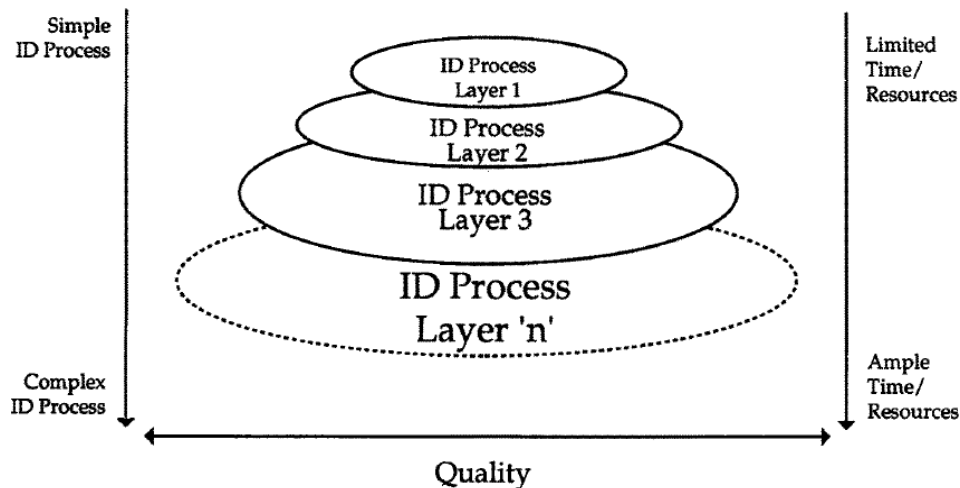


Figure 2: A graphical representation of the “*Layers-of-Necessity Instructional Development Model*” [Tessmer & Wedman, 1990]

This approach to ID has been implemented in the project when in T3.3 Partners had to design both the Localized Curricula and the pilots. Four main ID layers (see Figure 3) have been identified which progressively localize the EU General Curriculum:

- *Layer 0*: the EU Curriculum, providing the framework and the main constraints for localization;
- *Layer 1*: the instantiation on the Curriculum into five localized curricula;
- *Layer 2*: the design of the five pilots (based on localized curricula) at a higher level of detail;
- *Layer 3*: the design of the five pilots at the final (deeper) level of detail.

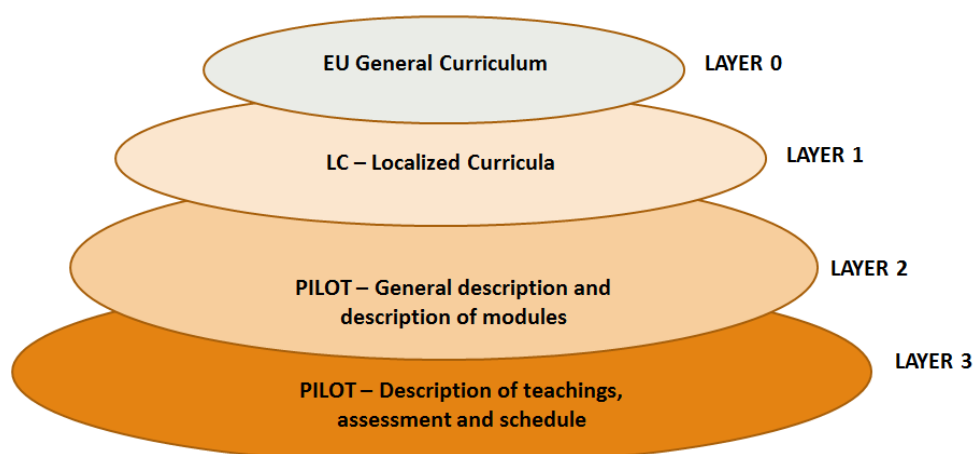


Figure 3: The four main ID layers implemented in NECTAR project

As depicted in Figure 4, in order to accomplish the above-described layers, partners performed different activities supported by two important results of the project delivered in the past months, i.e. the first release of the Curriculum (D3.1.1) and the first release of Guides and Tools (D3.2.1), namely the Designers' Kit.

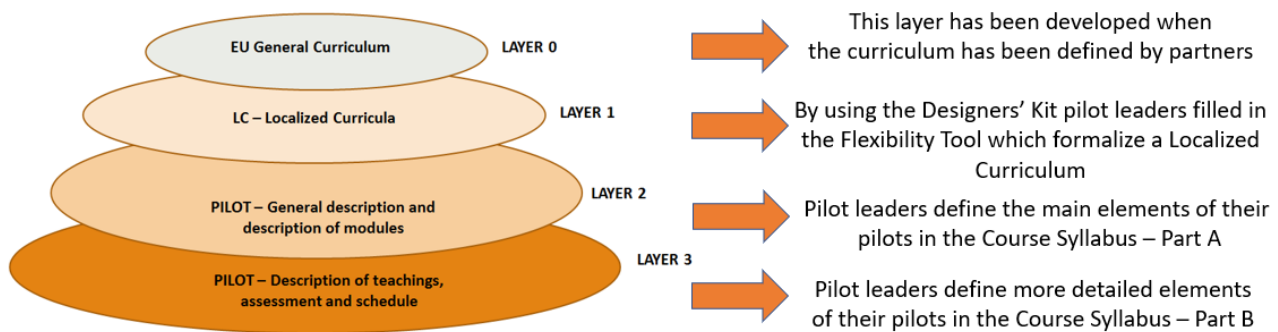


Figure 4: Activities performed by partners in order to accomplish the four main ID layers implemented in NECTAR project

The EU general Curriculum delivered at the end of the first year correspond to **Layer 0**.

Then pilot leaders have been invited to use the delivered Designers' Kit, i.e. a collection of tools supporting the Localization of the Curriculum, in order to produce a Localized Curriculum. **The result of this design layer (n. 1) is one Flexibility Tool (an Excel file) for each pilot**, which include all the information about the Localized Curriculum, such as selected LOs, a detail of Modules, the assigned number of ECVET points, etc. A description of this information for each pilot is provided in this document in Sections 10, 11, 12, 13 and 14, together with some screenshots drawn from the Excel; the excel files will be uploaded on the Erasmus Plus Platform together with this report.

In order to support the following design steps, the WP Leader (SI4LIFE) developed a template named "**Course Syllabus**". This template is divided into two main parts:

- **Part A is aimed to support the design Layer 2**
- **Part B is aimed to support the design Layer 3**

Once defined the Localized Curricula, pilot leaders have been invited to go more in detail with pilots design, identifying specific **teachings** inside each Module of the course and the workload distribution; this info has been included in Course Syllabus – Part A template. The documents filled in by each pilot leader are included in Sections 10, 11, 12, 13 and 14 of this report.

Layer 3 of the NECTAR pilots design process envisages the formalization of very detailed information about each teaching listed in Part A, as well as about the schedule of the course. This info has to be defined and described by the actual teachers of the pilots, who, at present, have not been recruited, yet. To this end, **part B of each Course Syllabus (see Annex 2)** will be completed in the next months (June – October 2022) before the start of the pilots, planned for November 2022. In agreement with WP5 leader and pilot leaders, they will be included in the reports of the pilots, respectively in **D5.1, D5.2, D5.3, D5.4 and D5.5**.

9 Description of the work

In the framework of T3.3, under the coordination of SI4LIFE, pilot leaders (ODISEE, MUG, MP, ITS-BACT, SCMA) have been invited to:

- design their own Localized Curriculum, including details about the selected LOs, the planned Modules, the assigned number of ECVET points, etc.
- define some important elements of the pilots, such as the specific teachings associated to each Learning Outcome, as well as their discipline sector / branch of knowledge, and the workload distribution.

In order to design the Localized Curriculum, they have been provided with the Designers' Kit, delivered in T3.2 and they have been asked to fill in the Flexibility Tool (one of the tools included in the Kit, namely DK7); as described in D3.2, the Flexibility Tool is an Excel folder composed of 6 sheets (4 + 2 for reference) and the "credits" one; they:

- allow to specify the educational strategy for each LO;
- allows to identify modules and to assign LOs to them;
- allows to assign ECVET points to each LO and to receive an automatic counting of the overall amount of ECVET points assigned to the whole course, to each module and to each UoL
- wrap-up automatically in a specific sheet to which Module the LOs have been assigned and the number of ECVET points awarded for each UoL/Module;
- supports the design of students assessment.

A specific online meeting has been set up in order to launch such an activity and to show to partners how to fill in the excel; a guide was also available in the kit (DK8 – Localizing the curriculum with the Flexibility Tool – User Manual). Pilot leaders have been invited to share drafts of their own Localized Curricula, so that SI4LIFE had the occasion to set up one-to-one meetings with them in order to support their refinement. Once the Flexibility Tools have been delivered in their final version, each pilot leader has been asked to write down a short textual description of them which have been included in Sections 10.1, 11.1, 12.1, 13.1 and 14.1 of this report.

In the meanwhile, a template for the Course Syllabus, aimed to support the formalization of design layer 2 and 3, has been drafted by SI4LIFE and shared with partners. The template has been adapted from the "Course Syllabus Template" included in ENHANCE Project Designers' Kit ²

Such a template has been shared with partners and commented in an online meeting, aimed at explaining the main aims of the document and to refine it according to specific needs. Once agreed a final version of the template and once delivered the Flexibility Tools, pilot leaders have been invited to complete Part A, aimed to collect information the specific teachings associated to each Learning Outcome, as well as their discipline sector / branch of knowledge, and the workload distribution. As happened for the Localized Curricula, pilot leaders have been invited to share drafts of their own documents, so that SI4LIFE had the occasion to provide personalized feedback supporting their refinement.

The delivered Parts A of each course syllabus have been included in Sections 10.2, 11.2, 12.2, 13.2 and 14.2 of this report.

As described in Section 7, Parts B of each Course Syllabus will be delivered in the framework of WP5.

² <https://oot.enhance-fcn.eu/course/view.php?id=26>

10 The Belgian Pilot

10.1 Localized Curriculum

The figures below illustrate two main sheets drawn from the Belgian flexibility tool representing the distribution of ECVET points among the UoLs (Figure 5, Figure 6) and the distribution of LOs among the modules (Figure 7).

ASSIGNED ECVET POINTS	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
	10	13	5	13	5	8	5	6	12	7	6	0

UoL 1												
LO1-A-1	2	0	0	0	0	0	0	0	0	0	0	0
LO1-A-2	2	0	0	0	0	0	0	0	0	0	0	0
LO1-B-1	2,5	0	0	0	0	0	0	0	0	0	0	0
LO1-B-2	1	0	0	0	0	0	0	0	0	0	0	0
LO1-C-1	0,5	0	0	0	0	0	0	0	0	0	0	0
LO1-D-1	1	0	0	0	0	0	0	0	0	0	0	0
LO1-D-2	0,5	0	0	0	0	0	0	0	0	0	0	0
LO1-D-3	0,5	0	0	0	0	0	0	0	0	0	0	0

UoL 2												
LO2-A-B-1	0	2	0	0	0	0	0	0	0	0	0	0
LO2-A-B-2	0	2	0	0	0	0	0	0	0	0	0	0
LO2-A-B-3	0	3	0	0	0	0	0	0	0	0	0	0
LO2-C-D-0	0	2	0	0	0	0	0	0	0	0	0	0
LO2-C-D-1	0	2	0	0	0	0	0	0	0	0	0	0
LO2-C-D-2	0	2	0	0	0	0	0	0	0	0	0	0
LO2-C-D-3	0	0	2,5	0	0	0	0	0	0	0	0	0
LO2-C-D-4	0	0	2	0	0	0	0	0	0	0	0	0
LO-E-1	0	0	0,5	0	0	0	0	0	0	0	0	0

UoL 3												
LO3-A-1	0	0	0	2,5	0	0	0	0	0	0	0	0
LO3-A-2	0	0	0	2	0	0	0	0	0	0	0	0
LO3-B-1	0	0	0	3	0	0	0	0	0	0	0	0
LO3-B-2	0	0	0	2,5	0	0	0	0	0	0	0	0
LO3-B-3	0	0	0	3	0	0	0	0	0	0	0	0
LO3-D-1	0	0	0	0	2	0	0	0	0	0	0	0
LO3-D-2	0	0	0	0	1,5	0	0	0	0	0	0	0
LO3-D-3	0	0	0	0	1,5	0	0	0	0	0	0	0

UoL 4												
LO4-A-1	0	0	0	0	0	1	0	0	0	0	0	0
LO4-A-2	0	0	0	0	0	1	0	0	0	0	0	0
LO4-A-3	0	0	0	0	0	0,5	0	0	0	0	0	0
LO4-B-1	0	0	0	0	0	1	0	0	0	0	0	0
LO4-B-2	0	0	0	0	0	0,5	0	0	0	0	0	0
LO4-B-3	0	0	0	0	0	0,5	0	0	0	0	0	0
LO4-C-1	0	0	0	0	0	1	0	0	0	0	0	0
LO4-C-2	0	0	0	0	0	1	0	0	0	0	0	0
LO4-C-3	0	0	0	0	0	0,5	0	0	0	0	0	0
LO4-D-1	0	0	0	0	0	1	0	0	0	0	0	0
LO4-D-2	0	0	0	0	0	0	0	0	0	0	0	0
LO4-D-3	0	0	0	0	0	0	0	0	0	0	0	0

Figure 5: ECVET Overview 1 - Belgium

UoL 5													
LO5-A-B-1	0	0	0	0	0	0	0	2	0	0	0	0	0
LO5-A-B-2	0	0	0	0	0	0	0	1,5	0	0	0	0	0
LO5-A-B-3	0	0	0	0	0	0	0	0,5	0	0	0	0	0
LO5-A-B-4	0	0	0	0	0	0	0	0,5	0	0	0	0	0
LO5-C-1	0	0	0	0	0	0	0	0,5	0	0	0	0	0
UoL 6													
LO6-A-B-1	0	0	0	0	0	0	0	2	0	0	0	0	0
LO6-A-B-2	0	0	0	0	0	0	0	1,5	0	0	0	0	0
LO6-A-B-3	0	0	0	0	0	0	0	1,5	0	0	0	0	0
LO6-A-B-4	0	0	0	0	0	0	0	0,5	0	0	0	0	0
LO6-A-B-5	0	0	0	0	0	0	0	0,5	0	0	0	0	0
LO6-C-1	0	0	0	0	0	0	0	0	2	0	0	0	0
LO6-C-2	0	0	0	0	0	0	0	0	2	0	0	0	0
LO6-C-3	0	0	0	0	0	0	0	0	2	0	0	0	0
LO6-D-1	0	0	0	0	0	0	0	0	2	0	0	0	0
LO6-D-2	0	0	0	0	0	0	0	0	2	0	0	0	0
LO6-D-3	0	0	0	0	0	0	0	0	2	0	0	0	0
UoL 7													
LO7-A-1	0	0	0	0	0	0	0	0	0	1,5	0	0	0
LO7-A-2	0	0	0	0	0	0	0	0	0	0,5	0	0	0
LO7-B-1	0	0	0	0	0	0	0	0	0	0,5	0	0	0
LO7-B-2	0	0	0	0	0	0	0	0	0	0,5	0	0	0
LO7-C-1	0	0	0	0	0	0	0	0	0	1,5	0	0	0
LO7-C-2	0	0	0	0	0	0	0	0	0	0,5	0	0	0
LO7-C-3	0	0	0	0	0	0	0	0	0	0,5	0	0	0
LO7-C-4	0	0	0	0	0	0	0	0	0	1	0	0	0
LO7-C-5	0	0	0	0	0	0	0	0	0	0,5	0	0	0
LO7-D-1	0	0	0	0	0	0	0	0	0	0	0,5	0	0
LO7-D-2	0	0	0	0	0	0	0	0	0	0	0,5	0	0
LO7-D-3	0	0	0	0	0	0	0	0	0	0	0,5	0	0
LO7-E-1	0	0	0	0	0	0	0	0	0	0	1,5	0	0
LO7-E-2	0	0	0	0	0	0	0	0	0	0	0,5	0	0
LO7-E-3	0	0	0	0	0	0	0	0	0	0	1	0	0
LO7-E-4	0	0	0	0	0	0	0	0	0	0	1,5	0	0

Figure 6: ECVET Overview 2 - Belgium

M1	SUPPLIERS AND SUSTAINABILITY
LO1-A-1	Identify the costs of required raw and semi-finished food products, kitchen equipment and consumable items, at the light of quality and sustainability and make and progressively update an inventory of all potential, local, food products, estimating their periodical cost
LO1-A-2	Identify international and national quality brands, also exploiting ICTs and dedicated e-data resources and taking into account high quality and parameters of sustainability, and take these brands into account managing suppliers
LO1-B-1	Define quality criteria of suppliers (including agri-fish-food chain) in order to identify, compare, monitor and evaluate regularly the best high-quality food suppliers
LO1-B-2	Plan and manage the supply process related to the specific health or social context
LO1-C-1	Identify and use local and seasonal ingredients in an appropriate way, identify local food suppliers and establish a network with them in order to guarantee constant food supply, also exploiting ICTs and dedicated e-data resources, being aware of the regional food supply chain and of how seasonal products are delivered
LO1-D-1	Promote full use of ingredients, raw materials and leftovers according to Hazard Analysis Critical Control Point-Concept (HACCP) and local law
LO1-D-2	Introduce measures for the prevention, separation and proper disposal of waste in the kitchen and ensure compliance with these measures by all members of the kitchen team
LO1-D-3	Create a food waste assessment plan, use it regularly, and share the results with all the staff
M2	SCREENING & ASSESSMENT
LO2-A-B-1	Understand the impact of nutrition on development of diseases and human metabolism in a life-course approach and vice versa
LO2-A-B-2	affect taste/smell and of possible clients' food intake needs with respect to taste/smell deterioration, and detect these needs in collaboration with health professionals
LO2-A-B-3	Be aware of the naub swallowing problems which raise the need for adapted food and be able to tackle these problems and conditions in daily work in collaboration with health professionals
LO2-C-D-0	Know and understand the concepts of 'Primary Food Care', 'Gastrology' and 'Gastro-engineering' in healthcare and their role to promote active and healthy ageing, is aware of the main characteristics of the CGE professional profile, of what a "gastrological intervention" implies and of the main "gastrological tools" a CGE can rely on
LO2-C-D-1	Identify and select test protocols on taste disturbances and use them to detect and classify taste deterioration and to monitor it
LO2-C-D-2	Create solutions for the results of assessment from a CGE perspective and within the context of a comprehensive and holistic food care approach
M3	ICT TOOLS
LO2-C-D-3	Know the main ICT tools for screening and assessing clients' individual food preferences and individual food intake needs and wishes, be able to select the proper ones and be able to use them, complying with data privacy and confidentiality guidelines and in collaboration with health professionals
LO2-C-D-4	Know the main ICT tools for recording and monitoring assessment results, as well as interventions, be able to select the proper ones and be able to use them, complying with legal ICT structure, addressing all data privacy and applicable confidentiality guidelines
LO-E-1	Know the main techniques and tools to detect clients' meal satisfaction and be able to apply this feedback in daily practice, in collaboration with health professionals

M4	MENU PLANNING I
LO3-A-1	Understand cultural, religious or other trending food choices, recognize their impact on meals and cooking and adapt dishes considering them
LO3-A-2	Follow food trends, try out new meals/recipes and evaluate the trial phase in terms of its feasibility in the business/service, also in collaboration with actors external to the kitchen/institution
LO3-B-1	Collaborate to create standardized menu plans, grounded on disease adapted meals, starting from clients' needs assessment and in collaboration with health professionals
LO3-B-2	Adjust baseline menus to satisfy individual preference and needs
LO3-B-3	Know the effects of cooking on ingredients/raw materials and select the proper methods, maximizing the freshness and quality of the ingredients/raw materials

M5	MENU PLANNING II
LO3-D-1	Know the basics of chemistry of food and combine food items in order to both respect food quality and obtain appetizing menus adapted to care settings
LO3-D-2	Schedule meals supply according to clients' needs and living environment, also taking into account the main accessibility issues for older adults and disabled people which could occur in the different care settings
LO3-D-3	Create menus including beverage recommendations for the planned menu sequences

M6	MANAGEMENT TOPICS
LO4-A-1	Create budgets for each meal, according to food seasonal price, non-food supplies, and expected equipment durability and lifetime
LO4-A-2	Calculate and manage the kitchen budget of food, utilities and personnel
LO4-A-3	Make budget plans, negotiate them with superiors and assure they are followed by the kitchen personnel
LO4-B-1	Identify control parameters, evaluate the quality of the kitchen team's performance, conduct employee appraisals and provide feedback to superiors
LO4-B-2	Describe jobs according to planned activities and participate in the recruitment of personnel collaborating with HR
LO4-B-3	Support new employees by informing, training and instructing them in their integration into the existing team, also identifying tutors and setting up training plans and employees personal career talks
LO4-C-1	Plan daily work optimizing workflow, draw up the work schedule and shifts for the kitchen team (balancing team capability) and ensure through constant monitoring that is followed by the staff
LO4-C-2	Analyse and optimize the processes in the kitchen organization, ensuring the smooth flow of food from preparation to service through communication between the kitchen and the service department
LO4-C-3	Know and apply the proper leadership strategies, being able to plan work, organize tasks, and delegate to others and to develop decision-making strategies
LO4-D-1	Define equipment maintenance schedules and monitor, assess, and record the adherence to it

M7	QUALITY CONTROL
LO5-A-B-1	Comply and monitor compliance with HACCP and with national and local hygiene quality standards in the preparation, storing, delivering and discarding food and beverages
LO5-A-B-2	Understand the risk of common foodborne diseases and the main causes of food deterioration; apply this knowledge to food safety
LO5-A-B-3	with safety, hygiene and quality standards and laws and properly document implemented measures
LO5-A-B-4	Promote health and safety within the working environment performing workplace evaluations for all stations in the kitchen and recording their results
LO5-C-1	Plan and execute food tasting for healthcare professionals to test and review menus and new dishes

M8	COOKING TECHNIQUES I
LO6-A-B-1	Know the main cooking techniques and select the appropriate ones for the different healthcare contexts in order to maintain the nutritional properties and maximize the nutritional value of the ingredients
LO6-A-B-2	Use or supervise the use of established, innovative and complex preparation methods, also combining and applying various cooking methods simultaneously and developing creative solutions
LO6-A-B-3	requirements and the meal plan approved by healthcare professionals, taking into account food intolerances and allergies
LO6-A-B-4	Prepare beverage recommendations for all dishes and communicate them to the service team
LO6-A-B-5	Prepare the decoration and serving plan in collaboration with the service team

M9	COOKING TECHNIQUES II
LO6-C-1	Design menus and a la carte dishes and apply proper food preparation and cooking techniques, also developing innovative solutions, for different food forms and diets and respect cultures and religions (e.g. vegetarians, vegans, gluten-free, allergy sufferers, people with food intolerances, diabetes, hypertension, etc.)
LO6-C-2	Recognize the model diets (vegan, vegetarian, zone diet, Mediterranean diet...) and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients
LO6-C-3	Recognize the food prescriptions and restraints of the main religions and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients
LO6-D-1	Define consistency and texture of food in a creative, balanced and flavourful way
LO6-D-2	Know the chemical composition of fortified food and correctly perform fortification in meals
LO6-D-3	Apply creative and innovative kitchen techniques to adapt recipes for people with taste changes or consistency adjustments (including hot, cold, crisp, soft, moist, dry)

M10	COMMUNICATION SKILLS & INTERPROFESSIONAL WORKING I
LO7-A-1	Define a customer satisfaction protocol and place customer service at the hearth of decision-making and activities
LO7-A-2	Using appropriate communication methods, styles according to the customers' and colleagues' attitude, culture and the purpose of communication
LO7-B-1	Understand the impact of food and nutrition on social determinants of health and vice versa and leverage attractive taste to promote healthy recipes and healthier nutritional habits, also providing advice and guidance to other professionals on culinary matters to educate clients
LO7-B-2	Prepare and apply client counselling, in collaboration with healthcare professionals, to promote healthy choices and behaviours
LO7-C-1	Be aware of the main roles and responsibilities of health/social care professionals in food care and work coherently, acting as a member of an interprofessional team, maximizing the added value of each professional, and identifying possibilities for interdisciplinary development and cooperation
LO7-C-2	Know the characteristics of successful teams and the main strategies for overcoming barriers to effective teamwork and contextualize them in daily work
LO7-C-3	Know, select and apply the proper communication and mutual support techniques for inter-professional teams and change and observe behaviours
LO7-C-4	Apply creative thinking techniques developing creative solutions to abstract problems, propose solutions and discuss with goal-orientated attitude, reaching shared decisions, applying the main problem-solving techniques
LO7-C-5	Exercise management and supervision in contexts of work, reviewing and developing performance of self and others

M11	COMMUNICATION SKILLS & INTERPROFESSIONAL WORKING II
LO7-D-1	Identifies opportunities to create value, develop creative and purposeful ideas, develop a vision to turn ideas into action, identify suitable ways for valuing ideas and assess consequences of them
LO7-D-2	Identify individual and group strengths and weaknesses, mobilizes resources needed to turn ideas into action, be aware of the idea cost and financial implications and engage relevant stakeholders for the action
LO7-D-3	Prioritize organize and follow up goals implementation, team up with others to pursue ideas and learn from experience
LO7-E-1	Browse, search, filter and manage data, information and digital content, evaluating them according to the specific context of application
LO7-E-2	Interact, share and collaborate through variety of digital technologies and select appropriate digital communication means for a given context
LO7-E-3	Know the main privacy issues and protect his/her own end users' personal data and privacy in digital environments
LO7-E-4	Know the main current digital tools dedicated to food (composition, ingredients, combination, properties, treatments, regional resources...)

Figure 7: Plan overview – Belgium

10.2 Belgian Course Syllabus (Part A)

Due to organisational problems of the Belgian pilot, the definition of the Belgian Course Syllabus has yet to be finalised at the time of delivery of the present document (D3.3). A specific D3.3 annex containing part A of the Belgian Course Syllabus will be released as soon as possible. The complete Course Syllabus (Part A and Part B) will then be delivered in deliverable 5.1.

11 The Portuguese Pilot

11.1 Localized Curriculum

The Nectar project stems from the need to train professionals who, besides their kitchen expertise, know how to cook, prepare and be sensitive to the specific needs of some diseases, both in terms of nutritional value and textures.

The main objective of this course is to provide trainees with specific knowledge of some diseases, the disabilities related to them and the importance of food in the treatment and well-being of those who suffer from them.

The objective of the Portuguese course is to achieve the EQF level 4, with 50 ECVET points. The course targets students who already possess an EQF4 level, but need a specialization. The Portuguese course will also validate prior learning such as, previous professional experience, additional formation in the required fields and certificated formation in the required fields. The course is expected to have 20-30 participants, and it will last 1250 hours.

The Portuguese course will consist of the following ten modules:

Module 1 – Basis of Kitchen

This module includes a set of learning objectives for training as a “chef”. This is an introductory module, in which trainees should acquire basic skills in the context of kitchen management and organization.

At the end of the module, trainees should be able not only to calculate and manage the kitchen budget according to planned menus, equipment and staff costs, but also to create schedules for the cleaning, maintenance and monitoring of equipment.

It is also expected that they acquire skills in the field of human resources management (kitchen team management).

Module 2 – Kitchen organization and planning

This module includes a set of four objectives, through which it is intended to consolidate some of the knowledge already acquired in the previous module (M1). As the name implies, it is a module aimed at acquiring skills in terms of organization and planning of work in the kitchen, namely: the ability to make a correct choice of suppliers according to the price-quality ratio of the raw material and to plan the purchase of food taking into account the tastes and preferences of the target population.

Trainees should also acquire skills in terms of the impact of different cooking methods on food, in order to avoid nutritional losses and maximize its flavor.

Module 3 – Basis of Cooking: Texture and Color

This module includes a set of five technical-scientific learning objectives. Trainees should complement the learning previously acquired (M1;M2) with some scientific knowledge, namely in terms of food chemistry, toxicology and food safety.

They must be able to handle different types of food, giving them different textures and consistencies, avoiding nutritional and organoleptic losses throughout the process.

Module 4 – Confection of soups, velvet and pureed soups according to basic needs

This module consists of a set of four learning objectives, with a view to acquiring skills in food preparation and in preparation based on the prescription of a health professional. It is intended that trainees will be able to budget and prepare meals that are nutritionally adequate to the individual needs of the target population.

In this module, trainees should also acquire knowledge in the context of safe use of food and prevention of food waste.

Module 5 – International food preparing and food trends

This module includes a set of five more practical objectives. The aim is for trainees to achieve skills that allow them to plan and prepare different types of menus and then evaluate their application in the kitchen/institution for which they are intended.

Module 6 - Nutrition and health

In this module, trainees should acquire basic notions of diet therapy, which will allow them to adapt the prepared menus to the client's health condition and/or food preferences.

At the end of the module, trainees should also be able to apply tools that allow the assessment of the customer/institution food satisfaction in collaboration with health professionals.

Module 7 - Dishing up and food preparing techniques according to diets

This module is intended to train participants to prepare meals, based on the specifics of the type of diet prescribed by the health professional.

Module 8 - Cooking process according to the required nutrition value

In this module, trainees should acquire basic notions in terms of human physiology and the impact that some of these changes may have on food intake.

Module 9 - Fundamentals of HACCP

The four strategic objectives of this module aim to make trainees acquire skills for the application and monitoring of a HACCP (Hazard analysis and critical control points) system.

Module 10 - Cost management

This module aims to consolidate the lessons learned in the previous modules regarding kitchen management and available budgets for preparing meals and organizing human resources.

The figures below illustrate two main sheets drawn from the Portuguese flexibility tool representing the distribution of ECVET points among the UoLs (Figure 8, Figure 9) and the distribution of LOs among the modules (Figure 10).

ASSIGNED ECVET POINTS	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	TOTAL
	5,5	6	4,5	6	4,5	7,5	3,5	5	3,5	4	50

UoL 1											ECVET POINTS per UoL
LO1-A-1	1	0	0	0	0	0	0	0	0	0	6
LO1-A-2	1	0	0	0	0	0	0	0	0	0	
LO1-B-1	0	1,5	0	0	0	0	0	0	0	0	
LO1-B-2	0	1	0	0	0	0	0	0	0	0	
LO1-C-1	0	0	0,5	0	0	0	0	0	0	0	
LO1-D-1	0	0	0	1	0	0	0	0	0	0	
LO1-D-2	0	0	0	0	0	0	0	0	0	0	
LO1-D-3	0	0	0	0	0	0	0	0	0	0	

UoL 2											ECVET POINTS per UoL
LO2-A-B-1	0	0	0	0	0	0	0	0	0	0	9
LO2-A-B-2	0	0	0	0	0	0	0	1	0	0	
LO2-A-B-3	0	0	0	0	0	0	1	0	0	0	
LO2-C-D-0	1	0	0	0	0	0	0	0	0	0	
LO2-C-D-1	0	0	0	0	0	0	0	0	1	0	
LO2-C-D-2	0	0	0	0	0	2	0	0	0	0	
LO2-C-D-3	0	0	0	0	0	0	1	0	0	0	
LO2-C-D-4	0	0	0	0	0	0	0	1	0	0	
LO-E-1	0	0	0	0	0	1	0	0	0	0	

UoL 3											ECVET POINTS per UoL
LO3-A-1	0	1,5	0	0	0	0	0	0	0	0	11
LO3-A-2	0	0	0	0	1,5	0	0	0	0	0	
LO3-B-1	0	0	0	1	0	0	0	0	0	0	
LO3-B-2	0	0	0	2	0	0	0	0	0	0	
LO3-B-3	0	2	0	0	0	0	0	0	0	0	
LO3-D-1	0	0	2	0	0	0	0	0	0	0	
LO3-D-2	0	0	0	0	0	0	0	0	0	0	
LO3-D-3	0	0	0	0	1	0	0	0	0	0	

UoL 4											ECVET POINTS per UoL
LO4-A-1	0	0	0	2	0	0	0	0	0	0	6
LO4-A-2	0,5	0	0	0	0	0	0	0	0	0	
LO4-A-3	0	0	0	0	0	0	0	0	0	0,5	
LO4-B-1	0	0	0	0	0	0	0	0	0	0,5	
LO4-B-2	0	0	0	0	0	0	0	0	0	0	
LO4-B-3	0,5	0	0	0	0	0	0	0	0	0	
LO4-C-1	0	0	0	0	0	0	0	1	0	0	
LO4-C-2	0,5	0	0	0	0	0	0	0	0	0	
LO4-C-3	0	0	0	0	0	0	0	0	0	0	
LO4-D-1	0,5	0	0	0	0	0	0	0	0	0	
LO4-D-2	0	0	0	0	0	0	0	0	0	0	
LO4-D-3	0	0	0	0	0	0	0	0	0	0	

Figure 8: ECVET Overview 1 - Portugal

UoL 5												ECVET POINTS per UOL
LO5-A-B-1	0	0	0	0	0	0	0	0	0	1	0	2,5
LO5-A-B-2	0	0	1	0	0	0	0	0	0	0	0	
LO5-A-B-3	0	0	0	0	0	0	0	0	0	0	0	
LO5-A-B-4	0	0	0	0	0	0	0	0	0	0	0	
LO5-C-1	0	0	0	0	0	0	0	0	0	0	0,5	
UoL 6												ECVET POINTS per UOL
LO6-A-B-1	0	0	0	0	0	0	1	0	0	0	0	8,5
LO6-A-B-2	0	0	0	0	0	1,5	0	0	0	0	0	
LO6-A-B-3	0	0	0	0	0	1	0	0	0	0	0	
LO6-A-B-4	0	0	0	0	0,5	0	0	0	0	0	0	
LO6-A-B-5	0	0	0	0	0	0	0	0	0	0	0,5	
LO6-C-1	0	0	0	0	0	1	0	0	0	0	0	
LO6-C-2	0	0	0	0	0	0,5	0	0	0	0	0	
LO6-C-3	0	0	0,5	0	0	0	0	0	0	0	0	
LO6-D-1	0	0	0,5	0	0	0	0	0	0	0	0	
LO6-D-2	0	0	0	0	0	0	0	0	0	0	0,5	
LO6-D-3	0	0	0	0	0	0	0	0	1	0	0	
UoL 7												ECVET POINTS per UOL
LO7-A-1	0	0	0	0	0	0	0	1	0	0	0	7
LO7-A-2	0	0	0	0	0	0	0	0	0	0	0	
LO7-B-1	0	0	0	0	0	0,5	0	0	0	0	0	
LO7-B-2	0	0	0	0	0	0	0	0	0	0	0	
LO7-C-1	0,5	0	0	0	0	0	0	0	0	0	0	
LO7-C-2	0	0	0	0	0	0	0	0,5	0	0	0	
LO7-C-3	0	0	0	0	0	0	0	0	0	0	0	
LO7-C-4	0	0	0	0	0	0	0	0	0	0	1	
LO7-C-5	0	0	0	0	1	0	0	0	0	0	0	
LO7-D-1	0	0	0	0	0	0	0	0	0	0	0	
LO7-D-2	0	0	0	0	0	0	0	0	0,5	0	0	
LO7-D-3	0	0	0	0	0	0	0	0	0	0	0	
LO7-E-1	0	0	0	0	0,5	0	0	0	0	0	0	
LO7-E-2	0	0	0	0	0	0	0	0	0	0,5	0	
LO7-E-3	0	0	0	0	0	0	0	0	0	0	0,5	
LO7-E-4	0	0	0	0	0	0	0,5	0	0	0	0	

Figure 9: ECVET Overview 2 - Portugal

M1	<i>Bases of kitchen</i>
LO1-A-1	Identify the costs of required raw and semi-finished food products, kitchen equipment and consumable items, at the light of quality and sustainability and make and progressively update an inventory of all potential, local, food products, estimating their periodical cost
LO1-A-2	Identify international and national quality brands, also exploiting ICTs and dedicated e-data resources and taking into account high quality and parameters of sustainability, and take these brands into account managing suppliers
LO2-C-D-0	Know and understand the concepts of 'Primary Food Care', 'Gastrology' and 'Gastro-engineering' in healthcare and their role to promote active and healthy ageing, is aware of the main characteristics of the CGE professional profile, of what a "gastrological intervention" implies and of the main "gastrological tools" a CGE can rely on
LO4-A-2	Calculate and manage the kitchen budget of food, utilities and personnel
LO4-B-3	Support new employees by informing, training and instructing them in their integration into the existing team, also identifying tutors and setting up training plans and employees personal career talks
LO4-C-2	Analyse and optimize the processes in the kitchen organization, ensuring the smooth flow of food from preparation to service through communication between the kitchen and the service department
LO4-D-1	Define equipment maintenance schedules and monitor, assess, and record the adherence to it
LO7-C-1	Be aware of the main roles and responsibilities of health/social care professionals in food care and work coherently, acting as a member of an interprofessional team, maximizing the added value of each professional, and identifying possibilities for interdisciplinary development and cooperation

M2	<i>Kitchen organization and planning</i>
LO1-B-1	Define quality criteria of suppliers (including agri-fish-food chain) in order to identify, compare, monitor and evaluate regularly the best high-quality food suppliers
LO1-B-2	Plan and manage the supply process related to the specific health or social context
LO3-A-1	Understand cultural, religious or other trending food choices, recognize their impact on meals and cooking and adapt dishes considering them
LO3-B-3	Know the effects of cooking on ingredients/raw materials and select the proper methods, maximizing the freshness and quality of the ingredients/raw materials

M3	<i>Bases of cooking: texture and color</i>
LO1-C-1	Identify and use local and seasonal ingredients in an appropriate way, identify local food suppliers and establish a network with them in order to guarantee constant food supply, also exploiting ICTs and dedicated e-data resources, being aware of the regional food supply chain and of how seasonal products are delivered
LO3-D-1	Know the basics of chemistry of food and combine food items in order to both respect food quality and obtain appetizing menus adapted to care settings
LO5-A-B-2	Understand the risk of common foodborne diseases and the main causes of food deterioration; apply this knowledge to food safety
LO6-C-3	Recognize the food prescriptions and restraints of the main religions and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients
LO6-D-1	Define consistency and texture of food in a creative, balanced and flavourful way

M4	<i>Confection of soups, velvets and purees according to basic needs</i>
LO1-D-1	Promote full use of ingredients, raw materials and leftovers according to Hazard Analysis Critical Control Point-Concept (HACCP) and local law
LO3-B-1	Collaborate to create standardized menu plans, grounded on disease adapted meals, starting from clients' needs assessment and in collaboration with health professionals
LO3-B-2	Adjust baseline menus to satisfy individual preference and needs
LO4-A-1	Create budgets for each meal, according to food seasonal price, non-food supplies, and expected equipment durability and lifetime

M5	<i>International food preparing and food trend.</i>
LO3-A-2	Follow food trends, try out new mwals/recipes and evaluate the trial phase in terms of its feasibility in the business/service, also in collaboration with actors external to the kitchen/institution
LO3-D-3	Create menus including beverage recommendations for the planned menu sequences
LO6-A-B-4	Prepare beverage recommendations for all dishes and communicate them to the service team
LO7-C-5	Exercise management and supervision in contexts of work, reviewing and developing performance of self and others
LO7-E-1	Browse, search, filter and manage data, information and digital content, evaluating them according to the specific context of application

M6	<i>Nutrition and health</i>
LO2-C-D-2	Create solutions for the results of assessment from a CGE perspective and within the context of a comprehensive and holistic food care approach
LO-E-1	Know the main techniques and tools to detect clients' meal satisfaction and be able to apply this feedback in daily practice, in collaboration with health professionals
LO6-A-B-2	Use or supervise the use of established, innovative and complex preparation methods, also combining and applying various cooking methods simultaneously and developing creative solutions
LO6-A-B-3	Prepare cold and hot dishes (or supervise their preparation) according to clients' requirements and the meal plan approved by healthcare professionals, taking into account food intolerances and allergies
LO6-C-1	Design menus and a la carte dishes and apply proper food preparation and cooking techniques, also developing innovative solutions, for different food forms and diets and respect cultures and religions (e.g. vegetarians, vegans, gluten-free, allergy sufferers, people with food intolerances, diabetes, hypertension, etc.)
LO6-C-2	Recognize the model diets (vegan, vegetarian, zone diet, Mediterranean diet...) and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients
LO7-B-1	Understand the impact of food and nutrition on social determinants of health and vice versa and leverage attractive taste to promote healthy recipes and healthier nutritional habits, also providing advice and guidance to other professionals on culinary matters to educate clients

M7	<i>Plating and food preparing technic according to food' diet</i>
LO2-A-B-3	Be aware of the naub swallowing problems which raise the need for adapted food and be able to tackle these problems and conditions in daily work in collaboration with health professionals
LO2-C-D-3	Know the main ICT tools for screening and assessing clients' individual food preferences and individual food intake needs and wishes, be able to select the proper ones and be able to use them, complying with data privacy and confidentiality guidelines and in collaboration with health professionals
LO6-A-B-1	Know the main cooking techniques and select the appropriate ones for the different healthcare contexts in order to maintain the nutritional properties and maximize the nutritional value of the ingredients
LO7-E-4	Know the main current digital tools dedicated to food (composition, ingredients, combination, properties, treatments, regional resources...)

M8	<i>Cooking process according to the required nutrition valu</i>
LO2-A-B-2	Know basics in physiology of taste/smell, be aware of how different conditions affect taste/smell and of possible clients' food intake needs with respect to taste/smell deterioration, and detect these needs in collaboration with health professionals
LO2-C-D-4	Know the main ICT tools for recording and monitoring assessment results, as well as interventions, be able to select the proper ones and be able to use them, complying with legal ICT structure, addressing all data privacy and applicable confidentiality guidelines
LO4-C-1	Plan daily work optimizing workflow, draw up the work schedule and shifts for the kitchen team (balancing team capability) and ensure through constant monitoring that is followed by the staff
LO7-A-1	Define a customer satisfaction protocol and place customer service at the hearth of decision-making and activities
LO7-C-2	Know the characteristics of successful teams and the main strategies for overcoming barriers to effective teamwork and contextualize them in daily work
LO7-D-2	Identify individual and group strenghts and weaknesses, mobilizes resources needed to turn ideas into action, be aware of the idea cost and financial implications and engage relevant stakeholders for the action

M9	<i>Fundamentals of HACCP</i>
LO2-C-D-1	Identify and select test protocols on taste disturbances and use them to detect and classify taste deterioration and to monitor it
LO5-A-B-1	Comply and monitor compliance with HACCP and with national and local hygiene quality standards in the preparation, storing, delivering and discarding food and beverages
LO6-D-3	Apply creative and innovative kitchen techniques to adapt recipes for people with taste changes or consistency adjustments (including hot, cold, crisp, soft, moist, dry)
LO7-E-2	Interact, share and collaborate through variety of digital technologies and select appropriate digital communication means for a given context

M10	<i>Cost control and management</i>
LO4-A-3	Make budget plans, negotiate them with superiors and assure they are followed by the kitchen personnel
LO4-B-1	Identify control parameters, evaluate the quality of the kitchen team's performance, conduct employee appraisals and provide feedback to superiors
LO5-C-1	Plan and execute food tasting for healthcare professionals to test and review menus and new dishes
LO6-A-B-5	Prepare the decoration and serving plan in collaboration with the service team
LO6-D-2	Know the chemical composition of fortified food and correctly perform fortification in meals
LO7-C-4	Apply creative thinking techniques developing creative solutions to abstract problems, propose solutions and discuss with goal-orientated attitude, reaching shared decisions, applying the main problem-solving techniques
LO7-E-3	Know the main privacy issues and protect his/her own end users' personal data and privacy in digital environments

Figure 10: Plan overview – Portugal

11.2 Portuguese Course Syllabus (Part A)

PART A - GENERAL INFORMATION about the COURSE

COURSE TITLE	<p><i>“Curso de Especialização em Gastro-Engenheiro”</i></p> <p><i>English translation: Specialization course in Chef Gastro-Engineering</i></p>
QUALIFICATION CONFERRED	<i>Chef specialized in Gastro-Engineering</i>
ECVET POINTS ASSIGNED	<i>50</i>
TOTAL STUDENT WORKLOAD DUTY	<i>1250 hours</i>
LEVEL OF QUALIFICATION (EQF)	<i>EQF4</i>
ACCESS REQUIREMENTS	<p><i>EQF4 education degree</i></p> <p><i>Secondary School degree</i></p>
NAME AND STATUS OF AWARDING INSTITUTION	<i>Santa Casa da Misericórdia de Albufeira</i>
LANGUAGE(S) OF INSTRUCTION/EXAMINATION	<i>Portuguese</i>
MODE OF STUDY	<i>blended learning</i>

COURSE COORDINATOR	
MAIN ADDRESS OF THE INSTITUTION	<i>Rua do Oceano, 8200-163, Albufeira</i>
MAIN CONTACTS	<i>00 351 289 515 427</i>
MAIN REFERENCE WEB PLATFORMS	<i>I-MOXX</i>

11.2.1 SHORT COURSE DESCRIPTION

In a context of an ageing population and increasing longevity, it is essential to train qualified professionals in the field of nutritious food preparation.

The scientific community has identified nutrition as the key to healthy ageing, especially preventing and treating pathologies linked to nutrition. Food should not be seen only as a way of satisfying a physiological need. On the contrary, it should be seen from the perspective of the entire act that involves and contemplates the art of eating: gastronomy.

The Nectar consortium identified an imbalance between the skills currently held by chefs working in hospitals and elderly homes and those effectively required by health institutions. It is necessary to train people capable of preparing meals for the senior population, providing them with the necessary knowledge to satisfy their individual and cultural tastes, but also to meet their true nutritional needs, both through normal consistency and modified consistency diets.

The Portuguese pilot will have 1250 hours, 50 ECVET point and will target an EQF4 level.

By specialising in the dietary needs of a priority target group (the elderly), the Chef Gastro Engineer (CGE) will be at the intersection with the world of science (interprofessionalism), as well as with suppliers of quality raw materials (sustainable purchases).

All this will focus on the principles and rules of the Mediterranean diet, a lifestyle and diet that makes it possible to live longer and healthier.

This last aspect highlights the predominantly work-based nature of the training course, which develops, in a deductive way from the exercise of the practice, the theoretical and technical-scientific contents that constitute the added value of this chef.

11.2.2 WORKLOAD DISTRIBUTION

ACTIVITY	Hours of Teaching	Hours of Individual study	Total Workload	Students'
Face-to-Face Class and webinars	200	100	300	
Labs	300	50	350	
Online learning (I-Moox and other local platforms)	100	150	250	
Work-based learning	200	50	250	
Final Examination	80	20	100	
TOTAL	880	370	1250	



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11.2.3 PART A - MODULES PLANS

MODULE 1

TITLE	Basis of Kitchen
ASSIGNED ECVET POINTS	5.5
STUDENTS WORKLOAD	137.5h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
LO1-A-1 <i>Identify the costs of required raw and semi-finished food products, kitchen equipment and consumable items, at the light of quality and sustainability and make and progressively update an inventory of all potential, local, food products, estimating their periodical cost</i>	1	<i>Information technology</i>	<i>T1.1a) - Catalogue the food products and also the kitchen equipment's</i>
		<i>Economy</i>	<i>T1.1b) – Benchmarking the local food products and estimate the Cost.</i>
		<i>Quality of food chains food Science</i>	<i>T1.1c) – Sustainable process in the food chain</i>
LO1-A-2 <i>Identify international and national quality brands,</i>	1	<i>Information technology</i>	<i>T1. 1d) Database analyses about producers and suppliers.</i>

<p>also exploiting ICTs and dedicated e-data resources and taking into account high quality and parameters of sustainability, and take these brands into account managing suppliers</p>			
		Commodity studies	T1. 1e) Identify international and national quality brands
		Economy	T1. 1f) Take brands into account managing suppliers
<p>LO2-C-D-0</p> <p>Know and understand the concepts of 'Primary Food Care', 'Gastrology' and 'Gastro-engineering' in healthcare and their role to promote active and healthy ageing, is aware of the main characteristics of the CGE professional profile, of what a "gastrological intervention" implies and of the main "gastrological tools" a CGE can rely on</p>	1	Gastroenterology	T1. 1g) – Interventions and tools to promote active and healthy ageing, CGE introduction

LO4-A-2 <i>Calculate and manage the kitchen budget of food, utilities and personnel</i>	0.5	Economy	T1. 1h) <i>Managing food, utilities and personnel according to the Work required.</i>
LO4-B-3 <i>Support new employees by informing, training and instructing them in their integration into the existing team, also identifying tutors and setting up training plans and employees personal career talks</i>	1	Workplace psychology	T1. 1i) – <i>Setting up training plans and career talks</i>
		Staff management	T1. 1j) – <i>train and instruct new employees</i>
LO4-D-1 <i>Define equipment maintenance schedules and monitor, assess, and record the adherence to it</i>	0.5	Food equipment	T1. 1k) – <i>The maintenance of kitchen equipment and schedules</i>
LO7-C-1 <i>Be aware of the main roles and responsibilities of health/social care professionals in food care and work coherently, acting as a member of an</i>	0.5	Work psychology	T1. 1l) – <i>the roles and responsibilities of health care professionals In food care environments</i>



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<i>interprofessional team, maximizing the added value of each professional, and identifying possibilities for interdisciplinary development and cooperation</i>			
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MODULE 2

1. TITLE	Kitchen organization and planning
ASSIGNED ECVET POINTS	6
STUDENTS WORKLOAD	150h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
LO1-B-1 <i>Define quality criteria of suppliers (including agri-fish-food chain) in order to identify, compare, monitor and evaluate regularly the best high-quality food suppliers</i>	1,5	<i>Commodity studies</i>	<i>T2. 2a) – Quality criteria for products</i>
		<i>Economy</i>	<i>T2. 2b) – Compare and monitor the high-quality food suppliers</i>

LO1-B-2 <i>Plan and manage the supply process related to the specific health or social context</i>	1	Healthcare economics	T2. 2c) – The healthcare contexts
		Food formulation technology	T2. 2d) – Nutritional calculation and kitchen practice
LO3-A-1 <i>Understand cultural, religious or other trending food choices, recognize their impact on meals and cooking and adapt dishes considering them</i>	1,5	Food tradition and religious culture	T2. 2e) – Cultural relationship with food, food prohibitions in the various cultures and religions
		Food trends	T2. 2f) – Vegan, vegetarian and pescatarian diets
		Gastronomy	T2. 2g) – Methods to adapt food for specific target groups
LO3-B-3 <i>Know the effects of cooking on ingredients/raw materials and select the proper methods, maximizing the freshness and quality of the ingredients/raw materials</i>	2	Food processing chemistry	T2. 2h) – Tools and methods of processing, cooking and preserving products, chemistry of food and how to maximize the freshness
		Creative cooking techniques	T2. 2i) – Modifications of the nutritional principles through cooking, create cooking techniques



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MODULE 3

1. TITLE	Basis of cooking: texture and color
ASSIGNED ECVET POINTS	4.5
STUDENTS WORKLOAD	112.5h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
LO1-C-1 <i>Identify and use local and seasonal ingredients in an appropriate way, identify local food suppliers and establish a network with them in order to guarantee constant food supply, also exploiting ICTs and dedicated e-data resources, being aware of the regional food supply chain and of how seasonal products are delivered</i>	0,5	<i>Economy</i>	<i>T3. 3a) – The seasonality of local food and seasonal prices</i>
		<i>Information technology</i>	<i>T3. 3b) – ICTs data resources</i>
LO3-D-1 <i>Know the basics of chemistry of food and combine food items in order to both respect food quality</i>	2	<i>Food chemistry</i>	<i>T3. 3c) – Chemistry of food and how to combine items, in order to prepare appetizing menus</i>

and obtain appetizing menus adapted to care settings		Gastronomy	T3. 3d) – Nutritional balance in meals
LO5-A-B-2 Understand the risk of common foodborne diseases and the main causes of food deterioration; apply this knowledge to food safety	1	Microbiology	T3. 3e) – Food bacteria, virus, toxins and contaminants and foodborne diseases
		Food hygiene	T3. 3f) – The procedures to minimize the risk of foodborne diseases, recognize when a food is altered.
LO6-C-3 Recognize the food prescriptions and restraints of the main religions and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients	0,5	Culture and religious tradition	T3. 3g) – The appropriate combination of ingredients for each culture
LO6-D-1 Define consistency and texture of food in a creative, balanced and flavourful way	0,5	Dietology	T3. 3h) – Diets modified consistency



MODULE 4

1. TITLE	Confection of soups, velvet and pureed soups according to basic need
ASSIGNED ECVET POINTS	6
STUDENTS WORKLOAD	
TIME SCHEDULE	150h

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
LO1-D-1 <i>Promote full use of ingredients, raw materials and leftovers according to Hazard Analysis Critical Control Point-Concept (HACCP) and local law</i>	1	Hygiene	T4. 4a) – <i>The HACCP steps related to food preparation</i>
LO3-B-1 <i>Collaborate to create standardized menu plans, grounded on disease adapted meals, starting from clients' needs assessment and in collaboration with health professionals</i>	1	Dietology in physiological and pathological conditions	T4. 4b) – <i>Nutrition needs and composition of balance and adapted meals.</i>



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LO3-B-2 <i>Adjust baseline menus to satisfy individual preference and needs</i>	2	<i>Physiology and pathology</i>	T4. 4c) – <i>Physiology and pathology needs</i>
		<i>Food chemistry</i>	T4. 4d) – <i>Adapting nutritional parameter to individual needs</i>
LO4-A-1 <i>Create budgets for each meal, according to food seasonal price, non-food supplies, and expected equipment durability and lifetime</i>	2	<i>Economy</i>	T4. 4e) – <i>Budget management in the kitchen</i>
		<i>Commodity studies</i>	T4. 4f) – <i>The durability of kitchen equipment, and how to proper use them</i>

MODULE 5

1. TITLE	International food preparing and food trends
ASSIGNED ECVET POINTS	4,5
STUDENTS WORKLOAD	112.5h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
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LO3-A-2 <i>Follow food trends, try out new meals/recipes and evaluate the trial phase in terms of its feasibility in the business/service, also in collaboration with actors external to the kitchen/institution</i>	1,5	Human diet and nutrition	T5. 5a) – The food trends T5. 5b) – Preparation of new meals
		Economy	T5. 5c) – Standardization and validation tools to evaluate feasibility of new meals/ recipes in collaboration with multidisciplinary team and stakeholders
LO3-D-3 <i>Create menus including beverage recommendations for the planned menu sequences</i>	1	Food and beverage	T5. 5d) Proper Combinations of Beverages with menus
LO6-A-B-4 <i>Prepare beverage recommendations for all dishes and communicate them to the service team</i>	0,5	Beverage according to health needs	T5. 5e) – Different beverages for different dishes
LO7-C-5 <i>Exercise management and supervision in contexts of work, reviewing and developing performance of self and others</i>	1	Work psychology	T5. 5f) – Need in the workplace and how to make an opportunity
LO7-E-1	0,5	Informatics	T5. 5g) – The principals of TIC, digital marketing and combining this with the workplace you are in

<i>Browse, search, filter and manage data, information and digital content, evaluating them according to the specific context of application</i>			
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MODULE 6

1. TITLE	Nutrition and health
ASSIGNED ECVET POINTS	7,5
STUDENTS WORKLOAD	187.5h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
LO2-C-D-2 <i>Create solutions for the results of assessment from a CGE perspective and within the context of a comprehensive and holistic food care approach</i>	2	<i>Health statics</i>	T6. 6a) - Solutions for assessment results
		<i>Nutrition</i>	T6. 6b) - Professions involved in comprehensive nutritional care and their function
LO2-E-1	1	<i>Client satisfaction</i>	T6. 6c) - The main tools and techniques tools for detection of clients' satisfaction and impressions

<i>Know the main techniques and tools to detect clients' meal satisfaction and be able to apply this feedback in daily practice, in collaboration with health professionals</i>			
LO6-A-B-2 <i>Use or supervise the use of established, innovative and complex preparation methods, also combining and applying various cooking methods simultaneously and developing creative solutions</i>	1,5	Food Technology	T6. 6d) - Define criteria to combine various cooking methods simultaneously
LO6-A-B-3 <i>Prepare cold and hot dishes (or supervise their preparation) according to clients' requirements and the meal plan approved by healthcare professionals, taking into account food intolerances and allergies</i>	1	Food intolerances and allergies	T6. 6e) - Food intolerances e allergies T6. 6f) – Meal preparing according to the individual needs
LO6-C-1 <i>Design menus and a la carte dishes and apply proper food preparation and cooking techniques, also developing innovative solutions, for different food forms and diets and respect cultures and religions (e.g. vegetarians, vegans, gluten-free, allergy sufferers, people with food</i>	1	Food science	T6. 6g) – Different types and styles of menu

intolerances, diabetes, hypertension, etc.)			
<p>L06-C-2</p> <p><i>Recognize the model diets (vegan, vegetarian, zone diet, Mediterranean diet...) and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients</i></p>	0,5	Food diets	T6. 6h) - The evaluation and selection of ingredients for dishes that are suitable for model diets
<p>L07-B-1</p> <p><i>Understand the impact of food and nutrition on social determinants of health and vice versa and leverage attractive taste to promote healthy recipes and healthier nutritional habits, also providing advice and guidance to other professionals on culinary matters to educate clients</i></p>	0,5	Nutrition and quality of life	T6. 6i) - Nutritional principles and Guidelines for a healthy diet



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MODULE 7

1. TITLE	Dishing up and food preparing technic according to diets
ASSIGNED ECVET POINTS	3,5
STUDENTS WORKLOAD	87.5h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
LO2-A-B-3 <i>Be aware of the naub swallowing problems which raise the need for adapted food and be able to tackle these problems and conditions in daily work in collaboration with health professionals</i>	1	Pathology	T7. 7a) - The main swallowing problems
LO2-C-D-3 <i>Know the main ICT tools for screening and assessing clients' individual food preferences and individual food intake needs and wishes, be able to select the proper ones and be able to use them, complying with data privacy and confidentiality guidelines and in collaboration with health professionals</i>	1	Food preferences	T7.7b) The most common ICT tools available regionally and their function for screening and assessing client's individual food preferences and individual needs and wishes

LO6-A-B-1 <i>Know the main cooking techniques and select the appropriate ones for the different healthcare contexts in order to maintain the nutritional properties and maximize the nutritional value of the ingredients</i>	1	Food technology	T7.7c) <i>Adapt the appropriate cooking techniques to the different food ranges</i>
LO7-E-4 <i>Know the main current digital tools dedicated to food (composition, ingredients, combination, properties, treatments, regional resources...)</i>	0,5	Digital tools	T7.7d) – <i>The main ICT tools dedicated to food</i>

MODULE 8

1. TITLE	Cooking process according to the required nutrition value
ASSIGNED ECVET POINTS	5
STUDENTS WORKLOAD	125h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
<p>LO2-A -B-2</p> <p><i>Know basics in physiology of taste/smell, be aware of how different conditions affect taste/smell and of possible clients' food intake needs with respect to taste/smell deterioration, and detect these needs in collaboration with health professionals</i></p>	1	Physiology, pathology and genetics of taste	<p>T8. 8a) - Different diseases affecting taste and smell</p> <p>T8. 8b) - Nutritional needs of people with diseases affecting the smell and taste</p>
<p>LO2-C-D-4</p> <p><i>Know the main ICT tools for recording and monitoring assessment results, as well as interventions, be able to select the proper ones and be able to use them, complying with legal ICT structure, addressing all data privacy and applicable confidentiality guidelines</i></p>	1	ICT tools	<p>T8. 8c) - The ICT tools for recording and monitoring assessment results, as well as culinary interventions</p>
<p>LO4-C-1</p> <p><i>Plan daily work optimizing workflow, draw up the work schedule and shifts for the kitchen team (balancing team capability) and ensure through constant monitoring that is followed by the staff</i></p>	1	Work planning	<p>T8. 8d) - The main elements of an effective work schedule</p> <p>T8. 8e) - The activities that the kitchen staff should carry out in each shift</p>

<p>LO7-A-1</p> <p><i>Define a customer satisfaction protocol and place customer service at the heart of decision-making and activities</i></p>	<p>1</p>	<p><i>Customer satisfaction protocol</i></p>	<p>T8. 8f) - The basic elements of Customer Relationship Management applied to collective catering</p>
<p>LO7-C-2</p> <p><i>Know the characteristics of successful teams and the main strategies for overcoming barriers to effective teamwork and contextualize them in daily work</i></p>	<p>0,5</p>	<p><i>Teams' satisfaction</i></p>	<p>T8. 8g) – The main strategies to daily working context</p>
<p>LO7-D-2</p> <p><i>Identify individual and group strengths and weaknesses, mobilizes resources needed to turn ideas into action, be aware of the idea cost and financial implications and engage relevant stakeholders for the action</i></p>	<p>0,5</p>	<p><i>Food costs</i></p>	<p>T8. 8h) – The main criteria to identify a cost of an idea cost and the financial implications</p>



MODULE 9

2 TITLE	Fundamentals of HACCP
ASSIGNED ECVET POINTS	3,5
STUDENTS WORKLOAD	87.5h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
LO2-C-D-1 <i>Identify and select test protocols on taste disturbances and use them to detect and classify taste deterioration and to monitor it</i>	1	Food protocols	T9. 9a) - The main test protocols
LO5-A-B-1 <i>Comply and monitor compliance with HACCP and with national and local hygiene quality standards in the preparation, storing, delivering and discarding food and beverages</i>	1	Food hygiene	T9. 9b) – The HACCP system and regulations
LO6-D-3 <i>Apply creative and innovative kitchen techniques to adapt recipes for people with taste changes or consistency</i>	1	Sensory analysis	T9. 9c) - How to recognize when taste changes or consistency adjustments are needed



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<i>adjustments (including hot, cold, crisp, soft, moist, dry)</i>			
LO7-E-2 <i>Interact, share and collaborate through variety of digital technologies and select appropriate digital communication means for a given context</i>	0,5	Information technology	<i>T9. 9d) - The main appropriate digital technologies to share data, information and digital content in working context.</i>

MODULE 10

1. TITLE	Cost management
ASSIGNED ECVET POINTS	4
STUDENTS WORKLOAD	100h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
LO4-A-3 <i>Make budget plans, negotiate them with superiors and assure they are</i>	0,5	Economy	<i>T10. 10a) – Budget plans</i>



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<i>followed by the kitchen personnel</i>			
LO4-B-1 <i>Identify control parameters, evaluate the quality of the kitchen team's performance, conduct employee appraisals and provide feedback to superiors</i>	0,5	<i>Employee conduct</i>	<i>T10. 10b) – Kitchen team</i>
LO5-C-1 <i>Plan and execute food tasting for healthcare professionals to test and review menus and new dishes</i>	0,5	<i>Menu reviewing</i>	T10.10c) - <i>The procedure to plan and conduct food tastings</i>
LO6-A-B-5 <i>Prepare the decoration and serving plan in collaboration with the service team</i>	0,5	<i>Team service</i>	T10.10d) - <i>The importance of food presentation as part of the meal experience</i>

<p>LO6-D-2</p> <p><i>Know the chemical composition of fortified food and correctly perform fortification in meals</i></p>	0,5	<i>Nutrition control</i>	T10.10e) - The difference of chemical composition of fortified food and enriched food
<p>LO7-C-4</p> <p><i>Apply creative thinking techniques developing creative solutions to abstract problems, propose solutions and discuss with goal-orientated attitude, reaching shared decisions, applying the main problem-solving techniques</i></p>	1	<i>Technology applied in the kitchen</i>	T10.10f) – The main communication techniques for professional teams
<p>LO7-E-3</p> <p><i>Know the main privacy issues and protect his/her own end users' personal data and privacy in digital environments</i></p>	0,5	<i>Personal data and management</i>	T10.10g) – data protection

12 The Austrian Pilot

12.1 Localized Curriculum

In Austria, becoming a chef implies a qualification and a competence level aligned with the European qualification framework level 4 (<https://www.qualifikationsregister.at/en/public/qualification/>). Austria holds a very mature network for continuous professional development (CPD) programs for labour market development. These programs are nested amongst others under the umbrella of WIFI („Wirtschaftsförderungsinstitut der Wirtschaftskammer Österreich“, <https://www.wifi.at/start>) as one of the major Vocational Education and Training (VET) provider in Austria. WIFI is responsible for needs assessments within the Austrian labour market, for the design and implementation as well as accreditation of CPD programs. In this context, programs for chefs have existed for decades (<https://www.wifi.at/kursbuch/tourismus/kueche-koch-patisserie/kueche-koch>). The newly developed curriculum for chef-gastro-engineer has been recognized by the Austrian labour market and by WIFI as an opportunity for continuous professional qualification. Only some parts of this curriculum are currently included in the professional training of chefs in Austria, just as some parts of the curriculum are already included in the existing CPD programs of WIFI.

Given this specific “Austrian” training landscape, the Austrian pilot for CGE training builds on prior knowledge during the professional training (https://www.ris.bka.gv.at/Dokumente/BgblAuth/BGBLA_2019_II_137/BGBLA_2019_II_137.pdf#sig), on the content offered in WIFI’s CPD courses and on new training elements developed during the Nectar project jointly with the national VET provider WIFI.

Within the framework of the Austrian pilot, the course to become a Chef Gastro Engineer is overall acknowledged as continuous professional development for chefs. The dedicated localized curriculum includes a total of 50 ECVET points, which refers to a workload of 1250 hours. More than 800 hours (32,3 ECVET points) are covered by the course and around 440 hours (17,7 ECVET points) are recognised as having been acquired through prior learning.. The EQF level is set in case B, corresponding to EQF 4/5. Since the present pilot is framed in quite a comprehensive learning path referring to a short-cycle higher education, it is set at EQF5 level awarding an EQF5 qualification. To justify the deviation from the level initially described in the proposal (EQF4) to the current one (EQF5), it is important to note that chefs in Austria already achieve level 4 through their 3-year dual apprenticeship programme as “chef” (including a final exam). In order to enable professional development, it was decided among the responsible VET providers to target a higher level and provide an EQF5 qualification. During the development of the Austrian pilot, the national contact point for accreditation of CPD competence levels has already been included in the work. This approach allows to continue the program by extending it to other Austrian regions after the end of the project and to guarantee the sustainability of the project results (<https://ibw.at/nqr-service>).

In principle, a positive evaluation of the prior professional training to become a chef and two years of workplace practice were identified as prerequisites to participate in the Austrian CGE CPD training. The training to become a chef in Austria in turn concludes with a dual apprenticeship diploma referring to EQF4, as already described above. However, the economic development institute (WIFI), as the responsible VET provider, decides on the final admittance of students (chefs) on an individual basis and following individual hearing sessions with candidates applying for the CPD trainings. For applicants who can prove their professional recognition as chefs and a positive evaluation of the pre-existing course in Austria, the concerned modules will be recognised. .

Upon completion of the course, participants will acquire in-depth knowledge and specialized skills in Chef Gastro Engineering and will obtain an additional qualification (EQF5), which is particularly significant for facilities such as hospitals, retirement or nursing homes (i.e. canteen kitchens in the healthcare sector). The documents awarded after the final exam (written, oral, practical) in accordance with the examination regulations include a certificate and a confirmation of participation for each participant.

Recognition of prior learning through the EQF4 apprenticeship training as “chef” is foreseen to be implemented in the present course enabling individuals to acquire the qualification. The basis and legal framework for the apprenticeship training as chef represents the Vocational Education/Training Act and the Vocational Training and Examination Regulations. This should ensure a uniform and adequate implementation of the apprenticeship and enable the determination of previous knowledge by identifying the content of the prior learning.

The skills acquired through Prior Learning as part of the training to become a chef enable interested parties to access the present CGE pilot course. At the same time, the learning outcomes (LOs) that can be associated to this preliminary qualification and recognized through a validation process have been grouped into modules, considered as an 'introduction' to the 'core' ones. Based on these circumstances, the designers of the local curriculum decided to organize modules by grouping the learning outcomes irrespective of their UoLs (Units of Learning Outcomes) and related key activities.

Continuing with the presentation of modules from the local Austrian curriculum, it should be noted that the course is structured into six modules in total. Two of the modules can be associated with Prior Learning and are considered "introductory", so that the LOs targeted by those modules can be recognized as “already achieved” through the process of prior learning. Another two modules contain LOs that are covered by the content of the pre-existing course in Austria, whereby the remaining two modules include content of the CGE curriculum that have not or just rarely been covered. These so far underrepresented LOs are consequently mapped in new modules that supplement the previous course, paying special attention to the aspects of interprofessional communication and collaboration as well as digitalization, IT and assessment tools.

According to the brief module descriptions above, the individual modules can be entitled as follows:

- Module 1 - *Introductory I*
- Module 2 - *Introductory II*
- Module 3 - *Impact, basics and related conditions of nutrition translated to the CGE environment*
- Module 4 - *Governance in the kitchen for Chef Gastro Engineering*
- Module 5 - *Screen, assess and monitor on client-level IT-based*
- Module 6 - *Interprofessional communication and collaboration*

The figures below illustrate two main sheets drawn from the Austrian flexibility tool representing the distribution of ECVET points among the UoLs (Figure 11,

UoL 5											ECVET POINTS per UOL
LO5-A-B-1	0	0,5	0	0	0	0	0	0	0	0	3
LO5-A-B-2	0	0	2	0	0	0	0	0	0	0	
LO5-A-B-3	0	0	0	0	0	0	0	0	0	0	
LO5-A-B-4	0	0	0	0	0	0	0	0	0	0	
LO5-C-1	0	0	0,5	0	0	0	0	0	0	0	

UoL 6											ECVET POINTS per UOL
LO6-A-B-1	0	1,2	0	0	0	0	0	0	0	0	8
LO6-A-B-2	0	1,2	0	0	0	0	0	0	0	0	
LO6-A-B-3	0	0,5	0	0	0	0	0	0	0	0	
LO6-A-B-4	0	0,2	0	0	0	0	0	0	0	0	
LO6-A-B-5	0	0,2	0	0	0	0	0	0	0	0	
LO6-C-1	0	1,5	0	0	0	0	0	0	0	0	
LO6-C-2	0	0,5	0	0	0	0	0	0	0	0	
LO6-C-3	0	0,5	0	0	0	0	0	0	0	0	
LO6-D-1	0	1	0	0	0	0	0	0	0	0	
LO6-D-2	0	0,5	0	0	0	0	0	0	0	0	
LO6-D-3	0	0,7	0	0	0	0	0	0	0	0	

UoL 7											ECVET POINTS per UOL
LO7-A-1	0	0,5	0	0	0	0	0	0	0	0	9
LO7-A-2	0	0	0	0	0	0	0	0	0	0	
LO7-B-1	0	0	1	0	0	0	0	0	0	0	
LO7-B-2	0	0	0	0	0	0,5	0	0	0	0	
LO7-C-1	0	0	0	0	0	1,5	0	0	0	0	
LO7-C-2	0	0	0	0,5	0	0	0	0	0	0	
LO7-C-3	0	0	0	0	0	0	0	0	0	0	
LO7-C-4	0	0	0	0	0	1	0	0	0	0	
LO7-C-5	0	0	0	0	0	1	0	0	0	0	
LO7-D-1	0	0	0	0	0	0	0	0	0	0	
LO7-D-2	0	0	0	0	0	0	0	0	0	0	
LO7-D-3	0	0	0	0	0	0	0	0	0	0	
LO7-E-1	0	0	0	0	1	0	0	0	0	0	
LO7-E-2	0	0	0	0	0	0	0	0	0	0	
LO7-E-3	0	0	0	0	1	0	0	0	0	0	
LO7-E-4	0	0	0	1	0	0	0	0	0	0	

Figure 12) and the distribution of LOs among the modules (Figure 13).

ASSIGNED ECVET POINTS	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	TOTAL
	8,3	9,4	13,8	8,1	6,4	4	0	0	0	0	50

UoL 1											ECVET POINTS per UOL
LO1-A-1	0,5	0	0	0	0	0	0	0	0	0	5,1
LO1-A-2	0,5	0	0	0	0	0	0	0	0	0	
LO1-B-1	0,8	0	0	0	0	0	0	0	0	0	
LO1-B-2	0	0	0	2,5	0	0	0	0	0	0	
LO1-C-1	0,2	0	0	0	0	0	0	0	0	0	
LO1-D-1	0,5	0	0	0	0	0	0	0	0	0	
LO1-D-2	0,1	0	0	0	0	0	0	0	0	0	
LO1-D-3	0	0	0	0	0	0	0	0	0	0	

UoL 2											ECVET POINTS per UOL
LO2-A-B-1	0	0	2,5	0	0	0	0	0	0	0	12
LO2-A-B-2	0,8	0	0	0	0	0	0	0	0	0	
LO2-A-B-3	0	0	3	0	0	0	0	0	0	0	
LO2-C-D-0	0	0	0	0	1,6	0	0	0	0	0	
LO2-C-D-1	0	0	0	0	1,5	0	0	0	0	0	
LO2-C-D-2	0	0	0,8	0	0	0	0	0	0	0	
LO2-C-D-3	0	0	0	0	1,3	0	0	0	0	0	
LO2-C-D-4	0	0	0,5	0	0	0	0	0	0	0	
LO-E-1	0	0	0	0	0	0	0	0	0	0	

UoL 3											ECVET POINTS per UOL
LO3-A-1	0,8	0	0	0	0	0	0	0	0	0	8
LO3-A-2	0,6	0	0	0	0	0	0	0	0	0	
LO3-B-1	0	0	3,5	0	0	0	0	0	0	0	
LO3-B-2	0,8	0	0	0	0	0	0	0	0	0	
LO3-B-3	1,2	0	0	0	0	0	0	0	0	0	
LO3-D-1	0,8	0	0	0	0	0	0	0	0	0	
LO3-D-2	0	0	0	0	0	0	0	0	0	0	
LO3-D-3	0,3	0	0	0	0	0	0	0	0	0	

UoL 4											ECVET POINTS per UOL
LO4-A-1	0	0	0	1,4	0	0	0	0	0	0	4,9
LO4-A-2	0,2	0	0	0	0	0	0	0	0	0	
LO4-A-3	0,2	0	0	0	0	0	0	0	0	0	
LO4-B-1	0	0	0	1,2	0	0	0	0	0	0	
LO4-B-2	0	0	0	0	0	0	0	0	0	0	
LO4-B-3	0	0	0	0	0	0	0	0	0	0	
LO4-C-1	0	0	0	1,5	0	0	0	0	0	0	
LO4-C-2	0	0,2	0	0	0	0	0	0	0	0	
LO4-C-3	0	0	0	0	0	0	0	0	0	0	
LO4-D-1	0	0,2	0	0	0	0	0	0	0	0	
LO4-D-2	0	0	0	0	0	0	0	0	0	0	
LO4-D-3	0	0	0	0	0	0	0	0	0	0	

Figure 11: ECVET Overview 1 - Austria

UoL 5											ECVET POINTS per UOL
LO5-A-B-1	0	0,5	0	0	0	0	0	0	0	0	3
LO5-A-B-2	0	0	2	0	0	0	0	0	0	0	
LO5-A-B-3	0	0	0	0	0	0	0	0	0	0	
LO5-A-B-4	0	0	0	0	0	0	0	0	0	0	
LO5-C-1	0	0	0,5	0	0	0	0	0	0	0	
UoL 6											ECVET POINTS per UOL
LO6-A-B-1	0	1,2	0	0	0	0	0	0	0	0	8
LO6-A-B-2	0	1,2	0	0	0	0	0	0	0	0	
LO6-A-B-3	0	0,5	0	0	0	0	0	0	0	0	
LO6-A-B-4	0	0,2	0	0	0	0	0	0	0	0	
LO6-A-B-5	0	0,2	0	0	0	0	0	0	0	0	
LO6-C-1	0	1,5	0	0	0	0	0	0	0	0	
LO6-C-2	0	0,5	0	0	0	0	0	0	0	0	
LO6-C-3	0	0,5	0	0	0	0	0	0	0	0	
LO6-D-1	0	1	0	0	0	0	0	0	0	0	
LO6-D-2	0	0,5	0	0	0	0	0	0	0	0	
LO6-D-3	0	0,7	0	0	0	0	0	0	0	0	
UoL 7											ECVET POINTS per UOL
LO7-A-1	0	0,5	0	0	0	0	0	0	0	0	9
LO7-A-2	0	0	0	0	0	0	0	0	0	0	
LO7-B-1	0	0	1	0	0	0	0	0	0	0	
LO7-B-2	0	0	0	0	0	0,5	0	0	0	0	
LO7-C-1	0	0	0	0	0	1,5	0	0	0	0	
LO7-C-2	0	0	0	0,5	0	0	0	0	0	0	
LO7-C-3	0	0	0	0	0	0	0	0	0	0	
LO7-C-4	0	0	0	0	0	1	0	0	0	0	
LO7-C-5	0	0	0	0	0	1	0	0	0	0	
LO7-D-1	0	0	0	0	0	0	0	0	0	0	
LO7-D-2	0	0	0	0	0	0	0	0	0	0	
LO7-D-3	0	0	0	0	0	0	0	0	0	0	
LO7-E-1	0	0	0	0	1	0	0	0	0	0	
LO7-E-2	0	0	0	0	0	0	0	0	0	0	
LO7-E-3	0	0	0	0	1	0	0	0	0	0	
LO7-E-4	0	0	0	1	0	0	0	0	0	0	

Figure 12: ECVET Overview 2 – Austria

Deliverable 3.3 - Instructional Design documents of five localized curricula and five pilot courses

M1	<i>MODUL 1 Introductory I</i>
LO1-A-1	Identify the costs of required raw and semi-finished food products, kitchen equipment and consumable items, at the light of quality and sustainability and make and progressively update an inventory of all potential, local, food products, estimating their periodical cost
LO1-A-2	and taking into account high quality and parameters of sustainability, and take these brands into account managing suppliers
LO1-B-1	Define quality criteria of suppliers (including agri-fish-food chain) in order to identify, compare, monitor and evaluate regularly the best high-quality food suppliers
LO1-C-1	Identify and use local and seasonal ingredients in an appropriate way, identify local food suppliers and establish a network with them in order to guarantee constant food supply, also exploiting ICTs and dedicated e-data resources, being aware of the regional food supply chain and of how seasonal products are delivered
LO1-D-1	Promote full use of ingredients, raw materials and leftovers according to Hazard Analysis Critical Control Point-Concept (HACCP) and local law
LO1-D-2	Introduce measures for the prevention, separation and proper disposal of waste in the kitchen and ensure compliance with these measures by all members of the kitchen team
LO2-A-B-2	Know basics in physiology of taste/smell, be aware of how different conditions affect taste/smell and of possible clients' food intake needs with respect to taste/smell deterioration, and detect these needs in collaboration with health professionals
LO3-A-1	Understand cultural, religious or other trending food choices, recognize their impact on meals and cooking and adapt dishes considering them
LO3-A-2	Follow food trends, try out new mwals/recipes and evaluate the trial phase in terms of its feasibility in the business/service, also in collaboration with actors external to the kitchen/institution
LO3-B-2	Adjust baseline menus to satisfy individual preference and needs
LO3-B-3	Know the effects of cooking on ingredients/raw materials and select the proper methods, maximizing the freshness and quality of the ingredients/raw materials
LO3-D-1	Know the basics of chemistry of food and combine food items in order to both respect food quality and obtain appetizing menus adapted to care settings
LO3-D-3	Create menus including beverage recommendations for the planned menu sequences
LO4-A-2	Calculate and manage the kitchen budget of food, utilities and personnel
LO4-A-3	Make budget plans, negotiate them with superiors and assure they are followed by the kitchen personnel

Deliverable 3.3 - Instructional Design documents of five localized curricula and five pilot courses

M2	<i>MODULE 2 Introductory II</i>
LO4-C-2	Analyse and optimize the processes in the kitchen organization, ensuring the smooth flow of food from preparation to service through communication between the kitchen and the service department
LO4-D-1	Define equipment maintenance schedules and monitor, assess, and record the adherence to it
LO5-A-B-1	Comply and monitor compliance with HACCP and with national and local hygiene quality standards in the preparation, storing, delivering and discarding food and beverages
LO6-A-B-1	Know the main cooking techniques and select the appropriate ones for the different healthcare contexts in order to maintain the nutritional properties and maximize the nutritional value of the ingredients
LO6-A-B-2	Use or supervise the use of established, innovative and complex preparation methods, also combining and applying various cooking methods simultaneously and developing creative solutions
LO6-A-B-3	Prepare cold and hot dishes (or supervise their preparation) according to clients' requirements and the meal plan approved by healthcare professionals, taking into account food intolerances and allergies
LO6-A-B-4	Prepare beverage recommendations for all dishes and communicate them to the service team
LO6-A-B-5	Prepare the decoration and serving plan in collaboration with the service team
LO6-C-1	Design menus and a la carte dishes and apply proper food preparation and cooking techniques, also developing innovative solutions, for different food forms and diets and respect cultures and religions (e.g. vegetarians, vegans, gluten-free, allergy sufferers, people with food intolerances, diabetes, hypertension, etc.)
LO6-C-2	Recognize the model diets (vegan, vegetarian, zone diet, Mediterranean diet...) and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients
LO6-C-3	Recognize the food prescriptions and restraints of the main religions and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients
LO6-D-1	Define consistency and texture of food in a creative, balanced and flavourful way
LO6-D-2	Know the chemical composition of fortified food and correctly perform fortification in meals
LO6-D-3	Apply creative and innovative kitchen techniques to adapt recipes for people with taste changes or consistency adjustments (including hot, cold, crisp, soft, moist, dry)
LO7-A-1	Define a customer satisfaction protocol and place customer service at the hearth of decision-making and activities

M3	<i>MODULE 3 Impact, basics and related conditions of nutrition translated to the CGE environment</i>
LO2-A-B-1	Understand the impact of nutrition on development of diseases and human metabolism in a life-course approach and vice versa
LO2-A-B-3	Be aware of the naub swallowing problems which raise the need for adapted food and be able to tackle these problems and conditions in daily work in collaboration with health professionals
LO2-C-D-2	Create solutions for the results of assessment from a CGE perspective and within the context of a comprehensive and holistic food care approach
LO2-C-D-4	Know the main ICT tools for recording and monitoring assessment results, as well as interventions, be able to select the proper ones and be able to use them, complying with legal ICT structure, addressing all data privacy and applicable confidentiality guidelines
LO3-B-1	Collaborate to create standardized menu plans, grounded on disease adapted meals, starting from clients' needs assessment and in collaboration with health professionals
LO5-A-B-2	Understand the risk of common foodborne diseases and the main causes of food deterioration; apply this knowledge to food safety
LO5-C-1	Plan and execute food tasting for healthcare professionals to test and review menus and new dishes
LO7-B-1	Understand the impact of food and nutrition on social determinants of health and vice versa and leverage attractive taste to promote healthy recipes and healthier nutritional habits, also providing advice and guidance to other professionals on culinary matters to educate clients

M4	<i>MODULE 4 Governance in the kitchen for Chef Gastro Engineering</i>
LO1-B-2	Plan and manage the supply process related to the specific health or social context
LO4-A-1	Create budgets for each meal, according to food seasonal price, non-food supplies, and expected equipment durability and lifetime
LO4-B-1	Identify control parameters, evaluate the quality of the kitchen team's performance, conduct employee appraisals and provide feedback to superiors
LO4-C-1	Plan daily work optimizing workflow, draw up the work schedule and shifts for the kitchen team (balancing team capability) and ensure through constant monitoring that is followed by the staff
LO7-C-2	Know the characteristics of successful teams and the main strategies for overcoming barriers to effective teamwork and contextualize them in daily work
LO7-E-4	Know the main current digital tools dedicated to food (composition, ingredients, combination, properties, treatments, regional resources...)

M5	<i>MODULE 5 Screen, assess and monitor on client-level IT-based</i>
LO2-C-D-0	healthcare and their role to promote active and healthy ageing, is aware of the main characteristics of the CGE professional profile, of what a "gastrological intervention" implies and of the main "gastrological tools" a CGE can rely on
LO2-C-D-1	Identify and select test protocols on taste disturbances and use them to detect and classify taste deterioration and to monitor it
LO2-C-D-3	Know the main ICT tools for screening and assessing clients' individual food preferences and individual food intake needs and wishes, be able to select the proper ones and be able to use them, complying with data privacy and confidentiality guidelines and in collaboration with health professionals
LO7-E-1	Browse, search, filter and manage data, information and digital content, evaluating them according to the specific context of application
LO7-E-3	Know the main privacy issues and protect his/her own end users' personal data and privacy in digital environments

M6	<i>MODULE 6 Interprofessional communication and collaboration</i>
LO7-B-2	Prepare and apply client counselling, in collaboration with healthcare professionals, to promote healthy choices and behaviours
LO7-C-1	Be aware of the main roles and responsibilities of health/social care professionals in food care and work coherently, acting as a member of an interprofessional team, maximizing the added value of each professional, and identifying possibilities for interdisciplinary development and cooperation
LO7-C-4	Apply creative thinking techniques developing creative solutions to abstract problems, propose solutions and discuss with goal-orientated attitude, reaching shared decisions, applying the main problem-solving techniques
LO7-C-5	Exercise management and supervision in contexts of work, reviewing and developing performance of self and others

Figure 13: Plan overview – Austria

12.2 Austrian Course Syllabus (Part A)

PART A - GENERAL INFORMATION about the COURSE

COURSE TITLE	<i>Ausbildung zum Diätkoch im Gesundheitsbereich</i> <u>English translation:</u> <i>Training course as a diet chef in the health sector</i>
QUALIFICATION CONFERRED	<i>Chef specialized in Gastro-Engineering</i>
ECVET POINTS ASSIGNED	<i>50 ECVET Points</i>
TOTAL STUDENT WORKLOAD DUTY	<i>1250 hours</i>
LEVEL OF QUALIFICATION (EQF)	<i>EQF4/5</i>
ACCESS REQUIREMENTS	<i>a) EQF4 education degree - Secondary School degree as "Chef" and at least 2 years of professional/ work experience (kitchen)</i> <i>--> Final approval is decided by the respective economic development institute (WIFI)</i>
NAME AND STATUS OF AWARDING INSTITUTION	<i>Wirtschaftsförderungsinstitut der Wirtschaftskammer Österreich (WIFI) - Vocational Education and Training provider</i>
LANGUAGE(S) OF INSTRUCTION/EXAMINATION	<i>German</i>
MODE OF STUDY	<i>Blended Learning</i>

COURSE COORDINATOR	<i>Birgit Gries</i>
MAIN ADDRESS OF THE INSTITUTION	<i>Körblergasse 111-113, 8010 Graz, Austria</i>
MAIN CONTACTS	<i>Martina Sonnleitner, MSc.</i> <i>WIFI Steiermark</i> martina.sonnleitner@stmk.wifi.at
MAIN REFERENCE WEB PLATFORMS	https://www.stmk.wifi.at http://www.iMOOX.at

12.2.1 SHORT COURSE DESCRIPTION

The course of Chef Gastro Engineer (CGE) in Austria is acknowledged as continuous professional development based upon the professional license as chef in Austria with proven professional

experience of more than 2 years. The Austrian course builds on prior learnings achieved during professional training and a CPD course including 4 training modules. Topics including knowledge on healthy nutrition and nutrition for people with disease-specific dietary needs are combined with specific skills, such as the preparation of varied, tasty and appetizing dishes for different target groups (especially older people) and kitchen management, as foreseen in the new European CGE curriculum released by the consortium of the Nectar project. Special attention is drawn to interprofessional communication and collaboration as well as digitalization and IT within the Austrian Nectar pilot. It is the primary goal of this new CPD offer for chefs in Austria to prepare attendees for interprofessional collaborative practice with other health care professionals, patients and relatives and/or care givers, thereby improving food and nutritional care for older and/or diseased people.

12.2.2 WORKLOAD DISTRIBUTION

ACTIVITY	Hours Teaching of	Hours of Individual study	Total Workload Students'
Face-to-Face Class and webinars	250	50	300
Labs	80	20	100
Online learning (I-Moox and other local platforms)	10	140	150
Work-based learning	50	250	300
Final Examination	12	388	400
TOTAL	402	848	1250

12.2.3 ATTENDANCE POLICY

Absence from lectures and/or tutorials shall not exceed 25%. Students who exceed the 25% limit without an acceptable medical or emergency excuse will undergo individual feedback talks by the course advisor to elaborate a shared contingency plan, ensuring the level of ability required for an Austrian Chef-Gastro Engineer.

12.2.4 PART A - MODULES PLANS

MODULE 1

TITLE	<i>Introductory I</i>
ASSIGNED ECVET POINTS	8,3 ECVET points
STUDENTS WORKLOAD	207,5 h

- The present module groups learning objectives (LOs) that can be associated with the preliminary training to become a chef. For this reason, this module is formally considered as 'introductory' to the 'core' ones, so that the LOs targeted by those modules can be recognized as “already achieved” through the process of prior learning.

MODULE 2

TITLE	<i>Introductory II</i>
ASSIGNED ECVET POINTS	9,4 ECVET points
STUDENTS WORKLOAD	235 h

- The present module groups learning objectives (LOs) that can be associated with the preliminary training to become a chef. For this reason, this module is formally considered as 'introductory' to the 'core' ones, so that the LOs targeted by those modules can be recognized as “already achieved” through the process of prior learning.



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MODULE 3

TITLE	<i>Impact, basics and related conditions of nutrition translated to the CGE environment</i>
ASSIGNED ECVET POINTS	13,8 ECVET points
STUDENTS WORKLOAD	345 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
LO2-A-B-1 <i>Understand the impact of nutrition on development of diseases and human metabolism in a life-course approach and vice versa</i>	2,5	Medicine	T1a- Medical Basics (Dr.med.univ. David Schöffmann)
		Human Diet and Nutrition	T1b- Nutrition (Birgit Grieß)
LO2-A-B-3 <i>Be aware of the main swallowing problems which raise the need for adapted food and be able to tackle these problems and conditions in daily work in collaboration with health professionals</i>	3,0	Dietetics in physiological and pathological conditions	T1c- Dietetics (Birgit Grieß, BSc Jasmin Briesner)
		Food technology Formulation	T1d- Kitchen Practice (KM Vinzenz Strommer, KM Werner Schmidl, Birgit Grieß, BSc Jasmin Briesner)
LO2-C-D-2 <i>Create solutions for the results of assessment from a CGE perspective and within the context of a comprehensive and holistic food care approach</i>	0,8	Dietetics in physiological and pathological conditions	T1c- Dietetics (Birgit Grieß, BSc Jasmin Briesner)
		Food technology Formulation	T1d- Kitchen Practice (KM Vinzenz Strommer, KM Werner Schmidl, Birgit Grieß, BSc Jasmin Briesner)

<p>LO2-C-D-4</p> <p><i>Know the main ICT tools for recording and monitoring assessment results, as well as interventions, be able to select the proper ones and be able to use them, complying with legal ICT structure, addressing all data privacy and applicable confidentiality guidelines</i></p>	0,5	<p><i>Dietetics in physiological and pathological conditions</i></p>	<p>T1c- Dietetics (Birgit Grieß, BSc Jasmin Briesner)</p>
<p>LO3-B-1</p> <p><i>Collaborate to create standardized menu plans, grounded on disease adapted meals, starting from clients' needs assessment and in collaboration with health professionals</i></p>	3,5	<p><i>Dietetics in physiological and pathological conditions</i></p>	<p>T1c- Dietetics (Birgit Grieß, BSc Jasmin Briesner)</p>
		<p><i>Nutrition Physiology</i></p>	<p>T1e- Nutritional calculation (KM Vinzenz Strommer, Birgit Grieß, BSc Jasmin Briesner)</p>
<p>LO5-A-B-2</p> <p><i>Understand the risk of common foodborne diseases and the main causes of food deterioration; apply this knowledge to food safety</i></p>	2,0	<p><i>Food Hygiene & Safety</i></p>	<p>T1f- Hygiene (KM Werner Schmidl)</p>
<p>LO5-C-1</p> <p><i>Plan and execute food tasting for healthcare professionals to test and review menus and new dishes</i></p>	0,5	<p><i>Food technology Formulation</i></p>	<p>T1d- Kitchen Practice (KM Vinzenz Strommer, KM Werner Schmidl, Birgit Grieß, BSc Jasmin Briesner)</p>
<p>LO7-B1</p> <p><i>Understand the impact of food and nutrition on social determinants of health and vice versa and leverage attractive taste to promote healthy recipes and healthier nutritional habits, also providing advice and</i></p>	1,0	<p><i>Human Diet and Nutrition</i></p>	<p>T1b- Nutrition (Birgit Grieß)</p>



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guidance to other professionals on culinary matters to educate clients			
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MODULE 4

TITLE	<i>Governance in the kitchen for Chef Gastro Engineering</i>
ASSIGNED ECVET POINTS	8,1 ECVET points
STUDENTS WORKLOAD	202,5 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
LO1-B-2 <i>Plan and manage the supply process related to the specific health or social context</i>	2,5	Dietetics in physiological and pathological conditions	T1c- Dietetics (Birgit Grieß, BSc Jasmin Briesner)
		Food technology Formulation	T1d- Kitchen Practice (KM Vinzenz Strommer, KM Werner Schmidl, Birgit Grieß, BSc Jasmin Briesner)
		Nutrition Physiology	T1e- Nutritional calculation (KM Vinzenz Strommer, Birgit Grieß, BSc Jasmin Briesner)
LO4-A-1 <i>Create budgets for each meal, according to food seasonal price, non-food supplies, and expected equipment durability and lifetime</i>	1,4	Food technology Formulation	T1d- Kitchen Practice (KM Vinzenz Strommer, KM Werner Schmidl, Birgit Grieß, BSc Jasmin Briesner)
		Cooking techniques & economics	T1g- Kitchen Technique (KM Vinzenz Strommer)
LO4-B-1 <i>Identify control parameters, evaluate the quality of the kitchen team's performance, conduct employee appraisals and provide feedback to superiors</i>	1,2	Food technology Formulation	T1d- Kitchen Practice (KM Vinzenz Strommer, KM Werner Schmidl, Birgit Grieß, BSc Jasmin Briesner)



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LO4-C-1 <i>Plan daily work optimizing workflow, draw up the work schedule and shifts for the kitchen team (balancing team capability) and ensure through constant monitoring that is followed by the staff</i>	1,5	Food technology	Formulation	T1d- Kitchen Practice (KM Vinzenz Strommer, KM Werner Schmidl, Birgit Grieb, BSc Jasmin Briesner)
LO7-C2 <i>Know the characteristics of successful teams and the main strategies for overcoming barriers to effective teamwork and contextualize them in daily work</i>	0,5	Food technology	Formulation	T1d- Kitchen Practice (KM Vinzenz Strommer, KM Werner Schmidl, Birgit Grieb, BSc Jasmin Briesner)
LO7-E-4 <i>Know the main current digital tools dedicated to food (composition, ingredients, combination, properties, treatments, regional resources...)</i>	1	Nutrition Physiology		T1e- Nutritional calculation (KM Vinzenz Strommer, Birgit Grieb, BSc Jasmin Briesner)

MODULE 5

TITLE	Screen, assess and monitor on client-level IT-based
ASSIGNED ECVET POINTS	6,4 ECVET points
STUDENTS WORKLOAD	160 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline / Sector / Branch of Knowledge	Teaching code, name and teacher
LO2-C-D-0	1,6	Geriatrics & Gastroenterology	T2a- Introduction to the CGE professional profile - characteristics, related terms, interventions and tools to

<i>Know and understand the concepts of 'Primary Food Care', 'Gastrology' and 'Gastro-engineering' in healthcare and their role to promote active and healthy ageing, is aware of the main characteristics of the CGE professional profile, of what a "gastrological intervention" implies and of the main "gastrological tools" a CGE can rely on</i>			<i>promote active & healthy ageing (Regina Roller-Wirnsberger, MD, MME)</i>
LO2-C-D-1 <i>Identify and select test protocols on taste disturbances and use them to detect and classify taste deterioration and to monitor it</i>	1,5	<i>Physiology and Genetics of Taste</i>	T2b- <i>Taste, taste disturbances & related test protocols and assessments (incl. practical use) (Gerhard Wirnsberger, MD)</i>
LO2-C-D-3 <i>Know the main ICT tools for screening and assessing clients' individual food preferences and individual food intake needs and wishes, be able to select the proper ones and be able to use them, complying with data privacy and confidentiality guidelines and in collaboration with health professionals</i>	1,3	<i>Informatics</i>	T2c- <i>ICT tools to map customer's individual food preferences, wishes, needs and satisfaction (tbd)</i>
LO7-E-1 <i>Browse, search, filter and manage data, information and digital content, evaluating them according to the specific context of application</i>	1,0	<i>Informatics</i>	T2d- <i>IT systems and Digitalization – Handling, evaluation & monitoring of data, information and digital content adjusted to the context (tbd)</i>
LO7-E-3 <i>Know the main privacy issues and protect his/her own end users' personal data and privacy in digital environments</i>	1,0	<i>Informatics</i>	T2e- <i>Data & privacy issues in digital environments (tbd)</i>



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MODULE 6

TITLE	<i>Interprofessional communication and collaboration</i>
ASSIGNED ECVET POINTS	4 ECVET points
STUDENTS WORKLOAD	100 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher
LO7-B-2 <i>Prepare and apply client counselling, in collaboration with healthcare professionals, to promote healthy choices and behaviours</i>	0,5	Workplace psychology, Communication Techniques	T3a- Counselling techniques to promote healthy choices/ behavior environments (Mag. Werner Heimgartner-WIFI)
LO7-C-1 <i>Be aware of the main roles and responsibilities of health/social care professionals in food care and work coherently, acting as a member of an interprofessional team, maximizing the added value of each professional, and identifying possibilities for interdisciplinary development and cooperation</i>	1,5	Staff management	T3b- The multiprofessional team - roles & responsibilities of health/social care professionals in food care environments (tbd)
		Workplace psychology	T3c- Interdisciplinary collaboration – Reasonable & empowering to add value through a team environments (Mag. Werner Heimgartner-WIFI)
LO7-C4 <i>Apply creative thinking techniques developing creative solutions to abstract problems, propose solutions and discuss with goal-orientated attitude, reaching</i>	1,0	Workplace psychology	T3d- Creative thinking & problem-solving techniques (Mag. Werner Heimgartner)
		Workplace psychology	T3e- Goal-oriented attitude & shared-decision making (Mag. Werner Heimgartner)



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<i>shared decisions, applying the main problem-solving techniques</i>			
<i>LO7-C-5 Exercise management and supervision in contexts of work, reviewing and developing performance of self and others</i>	<i>1,0</i>	<i>Workplace psychology</i>	<i>T3f-</i> <i>Evaluation & development of capacities (Mag. Werner Heimgartner)</i>

13 The Ligurian Pilot

13.1 Localized Curriculum

The Pilot course in Liguria Region is managed by **Istituto Professionale Statale per l'Enogastronomia e l'Ospitalità Alberghiera "Marco Polo" (MP)**, with operational headquarters in Genova, in collaboration with the institutional regulatory body Regione Liguria and the Associated Partner ALFA.

The pilot will consist in a Vocational Educational Training course aimed to achieve a qualification which will be included in the Regional Qualification System. The qualification will be afferent to the National Repertory of Qualifications and referenced to EQF.

The Ligurian pilot was initially intended at EQF4 level, but after a meeting between Regione Liguria and Regione Campania, considering that the situations in the two regions were highly similar, it was agreed to build the pilot to reach an EQF5, on the ground that candidates will enter the pilot with a VET diploma which is already at EQF4.

The course is therefore targeted at EQF 5, with 40 ECVET points and 1000 hours of workload.

At the beginning, according to the cases proposed by Si4life, as the EQF LEVEL was 5 and the workload was 1000 hours, MP assigned 60 ECVET points, but then to homogenize the Italian pilots we decided to reduce the number of ECVET points from 60 to 40.

EQF LEVEL	ESTIMATED WORKLOAD	ECVET POINTS RANGE
5	From 1 year to 1,5 years of formal training From 1500 to 2250 hours of workload	60 to 90

CASE A can correspond to curricula linked to Higher Education, where 60 to 90 ECTS are awarded to students. An example of this case are courses set up in Italy by ITS, which are Higher Technical Education Institutes, defined by law, and organized by the central (national) government in collaboration with the territorial government of the regions. Courses organized by ITS usually last 4 semesters for a total of 1800/2000 hours

In compliance with the EU Curriculum requirements, the specialization course will be addressed to people endowed with a:

- Diploma awarded by a vocational hospitality institute (EQF Level 4), in the fields "Food & Wine" and "Hall & Sales Services";
- Professional qualification (Professional Economic Field 19 – Tourism Services) as described in the Liguria Regional Qualification System (EQF Level 4).

Workers of the catering sector are admitted participating in the pilot subject to a validation of their competences (acquired in formal and informal teaching paths). MP is the regional accredited institution for the validation of such competences; as envisaged by regional rules, this procedure will be based on the compilation of a dossier which will be certified by Regione Liguria and ALFA Associated Partner.

In line with the EU Curriculum, the course is designed for the acquisition of specialist level skills in the Foodservice Industry.

The certificate obtained at the end of the course (after a proper public examination) will consist of the upcoming Regional professional qualification of "CGE - Chef Gastro Engineer"- *TECNICO DELLA RISTORAZIONE GASTRONOMICA PROTETTA* (EQF 5).

The duration is set at 1000 hours, 40% of which will be Internship or Work Placement. The remaining 60% of training path will be carried out in lab for a minimum of 30%. On an experimental basis, for the theoretical parts only, the provision of E-learning contents is allowed within a maximum limit of 15% of these theoretical parts (due to limits set by Italian law).

The number of participants is set at 25.

Pilot students will be awarded with a certification recognized by Regione Liguria and ALFA, which is the regional Agency for Work Training and Accreditation.

Regione Liguria and ALFA will also ensure that the CGE occupational profile will be included as a qualification in the Regional Qualification System; the qualification will be afferent to the National Repertory of Qualifications and referenced to EQF.

All the output competences of the qualification "CGE - Chef Gastro Engineer" will be mapped into ECVET points and the competences certified during the path will be equalised to the ECTS.

ALISA, the regional Health Agency, will participate as Associated partner to ensure that all project results impacting the regional health system comply with regional rules and respect the constraints of other professionals' roles. ALISA will also authorise the public call for selection of students and monitor their recruitment.

1. Module 1 - MANAGE SUPPLIERS AND BUY IN SUSTAINABLE FOOD INGREDIENTS:
4,5 ECVET points, 112,5 hours.
2. Module 2 - SCREEN ASSESS MONITOR ON CLIENT LEVEL:
6,1 ECVET points, 152,5 hours.
3. Module 3 - THE PROPER ICT TOOLS FOR ASSESSMENT:
1,9 ECVET points, 47,5 hours.
4. Module 4 - CREATE RECIPES FOR A GENERAL POPULATION AND FOR PEOPLE WITH SPECIFIC NEEDS, COMPLYING WITH RECOMMENDATIONS OF HEALTH PROFESSIONALS:
8 ECVET points, 200 hours.
5. Module 5 - MANAGE THE KITCHEN AND COORDINATE PERSONNEL:
3,5 ECVET points, 87,5 hours.
6. Module 6 - ENSURE QUALITY OF FOOD AND FOLLOW SAFETY REGULATIONS:
2 ECVET points, 50 hours.
7. Module 7 - USE AND ADAPT COOKING TECHNIQUES TO THE SPECIFIC CARE SETTING AND CLIENT:
9,6 ECVET, 240 hours.
8. Module 8 - COMMUNICATE, INTERACT AND COLLABORATE WITH CLIENTS AND INTERPROFESSIONAL TEAM:
1,4 ECVET points, 35 hours.
9. Module 9 - PROBLEM-SOLVING TECHNIQUES AND DIGITAL COMPETENCE IN DAILY WORK:
3 ECVET points, 75 hours.

The figures below illustrate two main sheets drawn from the Ligurian flexibility tool representing the distribution of ECVET points among the UoLs (Figure 14, Figure 15) and the distribution of LOs among the modules (Figure 16).

ASSIGNED ECVET POINTS	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	TOTAL
	4,5	6,1	1,9	8	3,5	2	9,6	1,4	3	0	40

UoL 1											ECVET POINTS per UoL
LO1-A-1	0,6	0	0	0	0	0	0	0	0	0	4,5
LO1-A-2	0,6	0	0	0	0	0	0	0	0	0	
LO1-B-1	1	0	0	0	0	0	0	0	0	0	
LO1-B-2	0,5	0	0	0	0	0	0	0	0	0	
LO1-C-1	0,4	0	0	0	0	0	0	0	0	0	
LO1-D-1	0,9	0	0	0	0	0	0	0	0	0	
LO1-D-2	0,4	0	0	0	0	0	0	0	0	0	
LO1-D-3	0,1	0	0	0	0	0	0	0	0	0	

UoL 2											ECVET POINTS per UoL
LO2-A-B-1	0	1	0	0	0	0	0	0	0	0	8
LO2-A-B-2	0	1,2	0	0	0	0	0	0	0	0	
LO2-A-B-3	0	1,2	0	0	0	0	0	0	0	0	
LO2-C-D-0	0	0,5	0	0	0	0	0	0	0	0	
LO2-C-D-1	0	1,6	0	0	0	0	0	0	0	0	
LO2-C-D-2	0	0,6	0	0	0	0	0	0	0	0	
LO2-C-D-3	0	0	1	0	0	0	0	0	0	0	
LO2-C-D-4	0	0	0,8	0	0	0	0	0	0	0	
LO-E-1	0	0	0,1	0	0	0	0	0	0	0	

UoL 3											ECVET POINTS per UoL
LO3-A-1	0	0	0	1	0	0	0	0	0	0	8
LO3-A-2	0	0	0	1	0	0	0	0	0	0	
LO3-B-1	0	0	0	2,2	0	0	0	0	0	0	
LO3-B-2	0	0	0	0,8	0	0	0	0	0	0	
LO3-B-3	0	0	0	1,6	0	0	0	0	0	0	
LO3-D-1	0	0	0	0,8	0	0	0	0	0	0	
LO3-D-2	0	0	0	0,2	0	0	0	0	0	0	
LO3-D-3	0	0	0	0,4	0	0	0	0	0	0	

UoL 4											ECVET POINTS per UoL
LO4-A-1	0	0	0	0	0,6	0	0	0	0	0	3,5
LO4-A-2	0	0	0	0	0,2	0	0	0	0	0	
LO4-A-3	0	0	0	0	0,5	0	0	0	0	0	
LO4-B-1	0	0	0	0	0,2	0	0	0	0	0	
LO4-B-2	0	0	0	0	0	0	0	0	0	0	
LO4-B-3	0	0	0	0	0	0	0	0	0	0	
LO4-C-1	0	0	0	0	0,4	0	0	0	0	0	
LO4-C-2	0	0	0	0	0,5	0	0	0	0	0	
LO4-C-3	0	0	0	0	0,2	0	0	0	0	0	
LO4-D-1	0	0	0	0	0,4	0	0	0	0	0	
LO4-D-2	0	0	0	0	0,2	0	0	0	0	0	
LO4-D-3	0	0	0	0	0,3	0	0	0	0	0	

Figure 14: ECVET Overview 1 - Liguria

UoL 5											ECVET POINTS per UoL
LO5-A-B-1	0	0	0	0	0	0,6	0	0	0	0	2
LO5-A-B-2	0	0	0	0	0	0,6	0	0	0	0	
LO5-A-B-3	0	0	0	0	0	0,2	0	0	0	0	
LO5-A-B-4	0	0	0	0	0	0,4	0	0	0	0	
LO5-C-1	0	0	0	0	0	0,2	0	0	0	0	
UoL 6											ECVET POINTS per UoL
LO6-A-B-1	0	0	0	0	0	0	1,4	0	0	0	9,6
LO6-A-B-2	0	0	0	0	0	0	2,2	0	0	0	
LO6-A-B-3	0	0	0	0	0	0	1,2	0	0	0	
LO6-A-B-4	0	0	0	0	0	0	0,4	0	0	0	
LO6-A-B-5	0	0	0	0	0	0	0,2	0	0	0	
LO6-C-1	0	0	0	0	0	0	1	0	0	0	
LO6-C-2	0	0	0	0	0	0	0,5	0	0	0	
LO6-C-3	0	0	0	0	0	0	0,5	0	0	0	
LO6-D-1	0	0	0	0	0	0	1	0	0	0	
LO6-D-2	0	0	0	0	0	0	0,6	0	0	0	
LO6-D-3	0	0	0	0	0	0	0,6	0	0	0	
UoL 7											ECVET POINTS per UoL
LO7-A-1	0	0	0	0	0	0	0	0,5	0	0	4,4
LO7-A-2	0	0	0	0	0	0	0	0	0	0	
LO7-B-1	0	0	0	0	0	0	0	0,1	0	0	
LO7-B-2	0	0	0	0	0	0	0	0,1	0	0	
LO7-C-1	0	0	0	0	0	0	0	0,5	0	0	
LO7-C-2	0	0	0	0	0	0	0	0,2	0	0	
LO7-C-3	0	0	0	0	0	0	0	0	0,4	0	
LO7-C-4	0	0	0	0	0	0	0	0	0,4	0	
LO7-C-5	0	0	0	0	0	0	0	0	0,3	0	
LO7-D-1	0	0	0	0	0	0	0	0	0,2	0	
LO7-D-2	0	0	0	0	0	0	0	0	0,2	0	
LO7-D-3	0	0	0	0	0	0	0	0	0	0	
LO7-E-1	0	0	0	0	0	0	0	0	0,5	0	
LO7-E-2	0	0	0	0	0	0	0	0	0,2	0	
LO7-E-3	0	0	0	0	0	0	0	0	0,3	0	
LO7-E-4	0	0	0	0	0	0	0	0	0,5	0	

Figure 15: ECVET Overview 2 – Liguria

M1	MANAGE SUPPLIERS AND BUY IN SUSTAINABLE FOOD INGREDIENTS
LO1-A-1	Identify the costs of required raw and semi-finished food products, kitchen equipment and consumable items, at the light of quality and sustainability and make and progressively update an inventory of all potential, local, food products, estimating their periodical cost
LO1-A-2	Identify international and national quality brands, also exploiting ICTs and dedicated e-data resources and taking into account high quality and parameters of sustainability, and take these brands into account managing suppliers
LO1-B-1	Define quality criteria of suppliers (including agri-fish-food chain) in order to identify, compare, monitor and evaluate regularly the best high-quality food suppliers
LO1-B-2	Plan and manage the supply process related to the specific health or social context
LO1-C-1	Identify and use local and seasonal ingredients in an appropriate way, identify local food suppliers and establish a network with them in order to guarantee constant food supply, also exploiting ICTs and dedicated e-data resources, being aware of the regional food supply chain and of how seasonal products are delivered
LO1-D-1	Promote full use of ingredients, raw materials and leftovers according to Hazard Analysis Critical Control Point-Concept (HACCP) and local law
LO1-D-2	Introduce measures for the prevention, separation and proper disposal of waste in the kitchen and ensure compliance with these measures by all members of the kitchen team
LO1-D-3	Create a food waste assessment plan, use it regularly, and share the results with all the staff
M2	SCREEN ASSESS MONITOR ON CLIENT LEVEL
LO2-A-B-1	Understand the impact of nutrition on development of diseases and human metabolism in a life-course approach and vice versa
LO2-A-B-2	Know basics in physiology of taste/smell, be aware of how different conditions affect taste/smell and of possible clients' food intake needs with respect to taste/smell deterioration, and detect these needs in collaboration with health professionals
LO2-A-B-3	Be aware of the naub swallowing problems which raise the need for adapted food and be able to tackle these problems and conditions in daily work in collaboration with health professionals
LO2-C-D-0	Know and understand the concepts of 'Primary Food Care', 'Gastrology' and 'Gastro-engineering' in healthcare and their role to promote active and healthy ageing, is aware of the main characteristics of the CGE professional profile, of what a "gastrological intervention" implies and of the main "gastrological tools" a CGE can rely on
LO2-C-D-1	Identify and select test protocols on taste disturbances and use them to detect and classify taste deterioration and to monitor it
LO2-C-D-2	Create solutions for the results of assessment from a CGE perspective and within the context of a comprehensive and holistic food care approach
M3	THE PROPER ICT TOOLS FOR ASSESSMENT
LO2-C-D-3	Know the main ICT tools for screening and assessing clients' individual food preferences and individual food intake needs and wishes, be able to select the proper ones and be able to use them, complying with data privacy and confidentiality guidelines and in collaboration with health professionals
LO2-C-D-4	Know the main ICT tools for recording and monitoring assessment results, as well as interventions, be able to select the proper ones and be able to use them, complying with legal ICT structure, addressing all data privacy and applicable confidentiality guidelines
LO-E-1	Know the main techniques and tools to detect clients' meal satisfaction and be able to apply this feedback in daily practice, in collaboration with health professionals

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M4	CREATE RECIPES FOR A GENERAL POPULATION AND FOR PEOPLE WITH SPECIFIC NEEDS, COMPLYING WITH RECOMMENDATIONS OF HEALTH PROFESSIONALS
LO3-A-1	Understand cultural, religious or other trending food choices, recognize their impact on meals and cooking and adapt dishes considering them
LO3-A-2	Follow food trends, try out new meals/recipes and evaluate the trial phase in terms of its feasibility in the business/service, also in collaboration with actors external to the kitchen/institution
LO3-B-1	Collaborate to create standardized menu plans, grounded on disease adapted meals, starting from clients' needs assessment and in collaboration with health professionals
LO3-B-2	Adjust baseline menus to satisfy individual preference and needs
LO3-B-3	Know the effects of cooking on ingredients/raw materials and select the proper methods, maximizing the freshness and quality of the ingredients/raw materials
LO3-D-1	Know the basics of chemistry of food and combine food items in order to both respect food quality and obtain appetizing menus adapted to care settings
LO3-D-2	Schedule meals supply according to clients' needs and living environment, also taking into account the main accessibility issues for older adults and disabled people which could occur in the different care settings
LO3-D-3	Create menus including beverage recommendations for the planned menu sequences
M5	MANAGE THE KITCHEN AND COORDINATE PERSONNEL
LO4-A-1	Create budgets for each meal, according to food seasonal price, non-food supplies, and expected equipment durability and lifetime
LO4-A-2	Calculate and manage the kitchen budget of food, utilities and personnel
LO4-A-3	Make budget plans, negotiate them with superiors and assure they are followed by the kitchen personnel
LO4-B-1	Identify control parameters, evaluate the quality of the kitchen team's performance, conduct employee appraisals and provide feedback to superiors
LO4-C-1	Plan daily work optimizing workflow, draw up the work schedule and shifts for the kitchen team (balancing team capability) and ensure through constant monitoring that is followed by the staff
LO4-C-2	Analyse and optimize the processes in the kitchen organization, ensuring the smooth flow of food from preparation to service through communication between the kitchen and the service department
LO4-C-3	Know and apply the proper leadership strategies, being able to plan work, organize tasks, and delegate to others and to develop decision-making strategies
LO4-D-1	Define equipment maintenance schedules and monitor, assess, and record the adherence to it
LO4-D-2	Ensure the adequate and efficient use and the proper cleaning of kitchen machines, equipment and utensils performing quality controls in compliance with quality national standards
LO4-D-3	Align workstations in the kitchen with the requirements of the individual kitchen stations
M6	ENSURE QUALITY OF FOOD AND FOLLOW SAFETY REGULATIONS
LO5-A-B-1	Comply and monitor compliance with HACCP and with national and local hygiene quality standards in the preparation, storing, delivering and discarding food and beverages
LO5-A-B-2	Understand the risk of common foodborne diseases and the main causes of food deterioration; apply this knowledge to food safety
LO5-A-B-3	Create instructions for staff about the measures to implement in order to comply with safety, hygiene and quality standards and laws and properly document implemented measures
LO5-A-B-4	Promote health and safety within the working environment performing workplace evaluations for all stations in the kitchen and recording their results
LO5-C-1	Plan and execute food tasting for healthcare professionals to test and review menus and new dishes

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M7	USE AND ADAPT COOKING TECHNIQUES TO THE SPECIFIC CARE SETTING AND CLIENT
LO6-A-B-1	Know the main cooking techniques and select the appropriate ones for the different healthcare contexts in order to maintain the nutritional properties and maximize the nutritional value of the ingredients
LO6-A-B-2	Use or supervise the use of established, innovative and complex preparation methods, also combining and applying various cooking methods simultaneously and developing creative solutions
LO6-A-B-3	Prepare cold and hot dishes (or supervise their preparation) according to clients' requirements and the meal plan approved by healthcare professionals, taking into account food intolerances and allergies
LO6-A-B-4	Prepare beverage recommendations for all dishes and communicate them to the service team
LO6-A-B-5	Prepare the decoration and serving plan in collaboration with the service team
LO6-C-1	Design menus and a la carte dishes and apply proper food preparation and cooking techniques, also developing innovative solutions, for different food forms and diets and respect cultures and religions (e.g. vegetarians, vegans, gluten-free, allergy sufferers, people with food intolerances, diabetes, hypertension, etc.)
LO6-C-2	Recognize the model diets (vegan, vegetarian, zone diet, Mediterranean diet...) and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients
LO6-C-3	Recognize the food prescriptions and restraints of the main religions and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients
LO6-D-1	Define consistency and texture of food in a creative, balanced and flavourful way
LO6-D-2	Know the chemical composition of fortified food and correctly perform fortification in meals
LO6-D-3	Apply creative and innovative kitchen techniques to adapt recipes for people with taste changes or consistency adjustments (including hot, cold, crisp, soft, moist, dry)

M8	COMMUNICATE, INTERACT AND COLLABORATE WITH CLIENTS AND INTERPROFESSIONAL TEAM
LO7-A-1	Define a customer satisfaction protocol and place customer service at the hearth of decision-making and activities
LO7-B-1	Understand the impact of food and nutrition on social determinants of health and vice versa and leverage attractive taste to promote healthy recipes and healthier nutritional habits, also providing advice and guidance to other professionals on culinary matters to educate clients
LO7-B-2	Prepare and apply client counselling, in collaboration with healthcare professionals, to promote healthy choices and behaviours
LO7-C-1	Be aware of the main roles and responsibilities of health/social care professionals in food care and work coherently, acting as a member of an interprofessional team, maximizing the added value of each professional, and identifying possibilities for interdisciplinary development and cooperation
LO7-C-2	Know the characteristics of successful teams and the main strategies for overcoming barriers to effective teamwork and contextualize them in daily work

M9	PROBLEM-SOLVING TECHNIQUES AND DIGITAL COMPETENCE IN DAILY WORK
L07-C-3	Know, select and apply the proper communication and mutual support techniques for inter-professional teams and change and observe behaviours
L07-C-4	Apply creative thinking techniques developing creative solutions to abstract problems, propose solutions and discuss with goal-orientated attitude, reaching shared decisions, applying the main problem-solving techniques
L07-C-5	Exercise management and supervision in contexts of work, reviewing and developing performance of self and others
L07-D-1	Identifies opportunities to create value, develop creative and purposeful ideas, develop a vision to turn ideas into action, identify suitable ways for valuing ideas and assess consequences of them
L07-D-2	Identify individual and group strenghts and weaknesses, mobilizes resources needed to turn ideas into action, be aware of the idea cost and financial implications and engage relevant stakeholders for the action
L07-E-1	Browse, search, filter and manage data, information and digital content, evaluating them according to the specific context of application
L07-E-2	Interact, share and collaborate through variety of digital technologies and select appropriate digital communication means for a given context
L07-E-3	Know the main privacy issues and protect his/her own end users' personal data and privacy in digital environments
L07-E-4	Know the main current digital tools dedicated to food (composition, ingredients, combination, properties, treatments, regional resources...)

Figure 16: Plan Overview – Liguria

13.2 Ligurian Course Syllabus (Part A)

13.2.1 PART A - GENERAL INFORMATION about the COURSE

COURSE TITLE	<i>Chef esperto di cucina salutistica</i> <i>English Translation: Chef with expertise in healthy cooking</i>
QUALIFICATION CONFERRED	<i>CHEF ESPERTO DI CUCINA SALUTISTICA</i>
ECVET POINTS ASSIGNED	<i>40</i>
TOTAL STUDENT WORKLOAD DUTY	<i>1000 hours</i>
LEVEL OF QUALIFICATION (EQF)	<i>EQF5</i>
ACCESS REQUIREMENTS	<i>EQF4</i>
NAME AND STATUS OF AWARDING INSTITUTION	<i>– IPSSAR MARCO POLO GENOVA”</i>
LANGUAGE(S) OF INSTRUCTION/EXAMINATION	<i>Italian</i>
MODE OF STUDY	<i>Blended learning</i>

COURSE COORDINATOR	<i>Prof. Solinas Roberto</i>
MAIN ADDRESS OF THE INSTITUTION	gerh01000g@istruzione.it
MAIN CONTACTS	<i>Prof. Roberto Solinas</i>
MAIN REFERENCE WEB PLATFORMS	<i>School website, I-MOOX</i>

13.2.2 SHORT COURSE DESCRIPTION

The international scientific community identified nutrition as the key to healthy ageing. In particular, the importance of preventing and treating pathologies typically linked to nutrition (cardiovascular diseases, endocrinological diseases, diabetes, atherosclerosis, Alzheimer's disease,...) has been highlighted, underlining the need for a competent and public health workforce, which is currently missing.

The Nectar consortium identified a mismatch between the competences currently owned by chefs who work for hospital canteens and residences for the elderly, and those actually required by health institutions. So, the CGE professional profile has been studied and developed during the project.

The Italian pilot courses, i.e. the Ligurian and Campania's ones, will last 1000 hours and will be included in the European system and in the regional Repertories of qualifications of the experimental territories. Moreover, they will both award an EQF level 5 and 40 ECVET points.

The flexibility tools have been planned together by ITS Bact and Marco Polo as the result of their joint work.

The "Chef Gastro Engineer" qualification was rendered into Italian as "*Chef esperto di cucina salutistica*". The name of this qualification is the result of an informal agreement between Regione Campania and Regione Liguria, who are both NECTAR project partners. "*Chef esperto di cucina salutistica*" will be a Regional Qualification, set at EQF5 level. Both regions are now starting the pathway for the institutional recognition of the qualification in the Repertories of Professionals Qualifications of Liguria and Campania. It will also be integrated in the National Framework of Regional Qualifications (Quadro Nazionale di Riferimento delle Qualificazioni Regionali - QNQR).

The qualification will be aimed at the dietary needs of a priority target (the elderly).

Thanks to a higher autonomy in his/her communication and relationship with the world of science (inter-professionalism), as well as with suppliers of quality raw materials (sustainable procurement), the Chef Gastro Engineer (CGE) will have additional skills to those mentioned above. In particular, these additional skills will concern the customization of recipes based on the pathologies or disabilities of the end user, always in close interaction with the chef (screening) and technical skills to use ICT tools for the remote personalization and monitoring of menus.

All this will be focused on the principles and rules of the Mediterranean diet, a lifestyle and diet that has been an intangible heritage of humanity since 2010. The Mediterranean diet was discovered by illustrious American researchers in Cilento, an area of the Campania region, because of the healthy longevity of its inhabitants. It then progressively spread throughout Italy and beyond, also thanks to a group of starred chefs from Campania, who were designated by UNESCO as ambassadors of the Mediterranean Diet in the world and will be involved as teachers in the Italian pilot editions of the CGE training course.

This last aspect highlights the predominantly work-based and laboratory character (60% of the total number of hours) of the training course, which develops, in a deductive way from the exercise of the practice, the theoretical and technical-scientific contents that constitute the added value of this chef. The main subject areas within which knowledge and skills of the professional figure are embedded are: food and nutrition science, food hygiene, commodities, gastronomic economics, ICT, gastronomy, physiology and pathology, health statistics, clinical psychology, communication science, interpersonal relationship management, dietetics, food chemistry, personnel management, microbiology, hygiene, food safety, work safety, food law, collective catering.



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13.2.3 WORKLOAD DISTRIBUTION

ACTIVITY	Hours of Teaching	Hours of Individual study	Total Students' Workload
Face-to-Face Class and webinars	278	62	340
Labs	242	60,5	302,5
Online learning (I-Moox and other local platforms)	10	10	20
Work-based learning	55,5	222	277,5
Final Examination	12	48	60
TOTAL	597,5	402,5	1000

13.2.4 ATTENDANCE POLICY

Absence from lectures and/or tutorials shall not exceed 25%. Students who exceed the 25% limit without a medical or emergency excuse acceptable will undergo individual feedback talks from the course advisor to elaborate a shared contingency plan, ensuring the capacity level required.



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13.2.5 PART A - MODULES PLANS

MODULE 1

TITLE	MANAGE SUPPLIERS AND BUY IN SUSTAINABLE FOOD INGREDIENTS
ASSIGNED ECVET POINTS	4,5
STUDENTS WORKLOAD	112,5 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T1
LO1-A1	0,6		T1.1
Identify the costs of required raw and semi-finished food products, kitchen equipment and consumable items, at the light of quality and sustainability and make and progressively update an inventory of all potential, local, food products, estimating their periodical cost		QUALITY OF FOOD CHAINS	<i>T1.1a The sustainable process in the agri-food chain (Prof.)</i>
		FOOD SCIENCE	<i>T1.1b The parameters of sustainability and quality in the agri-food chain (Prof.)</i>
		COMMODITY STUDIES	<i>T1.1c The key features of an inventory of all potential local food products (Prof.)</i>
		ECONOMY	<i>T1.1d Criteria to estimate the seasonal cost of local food products (Prof.)</i>
		INFORMATION TECHNOLOGY	<i>T1.1e Data collection on local food products (Prof.)</i>
		ECONOMY	<i>T1.1f Identify costs of kitchen equipment and consumable items (Prof.)</i>
			<i>T1.1g Identification of costs of raw and semi-finished food products required (Prof.)</i>
LO1-A2	0,6		T1.2
Identify international and national quality brands, also exploiting ICTs and dedicated e-data resources and taking into account high quality and parameters of sustainability, and take these brands into account managing suppliers		ECONOMY	<i>T1.2a Quality marks</i> <i>T1.2b Quality tout court (ISO 9001: 2015, IFS, BRC, GLOBAL GAP)</i> <i>T1.2c Environmental certifications (ISO 14001: 2015, EMAS)</i>
		COMMODITY STUDIES	<i>T1.2d International and national quality brands</i>
		ECONOMY	<i>T1.2e Quality certifications for organic products according to European and third countries' legislation.</i>



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			<i>T1.2f Protocols of integrated agriculture and biodynamics</i>
		ECONOMY	<i>T1.2g Certifications of typical origin allowed in the EU (IGP; DOP; STG)</i>
		INFORMATION TECHNOLOGY	<i>T1.2h The main characteristics of a database about to the main producers and suppliers for an inventory of products of typical origin or with quality certifications, crossing it with sustainability parameters</i>
			<i>T1.2i The principal TICs to update a database of suppliers</i>
LO1-B1	1		T1.3
Define quality criteria of suppliers (including agri-fish-food chain) in order to identify, compare, monitor and evaluate regularly the best high-quality food suppliers		COMMODITY STUDIES	<i>T1.3a Sustainability assessment of food by FAO</i>
			<i>T1.3b Sustainability in food production and consumption</i>
			<i>T1.3c Quality criteria for products</i>
		ECONOMY	<i>T1.3d Suppliers' compliance with quality and sustainability criteria</i> <i>T1.3e Sustainability criteria for each pair of product/supplier</i>
		GASTRONOMY	<i>T1.3f Evaluation criteria for supplier product quality</i>
LO1-B-2	0,5		T1.4
Plan and manage the supply process related to the specific health or social context		HEALTHCARE ECONOMICS	<i>T1.4a The healthcare contexts</i>
		GASTRONOMY	<i>T1.4b The management of supply process</i>
		HEALTHCARE ECONOMICS	<i>T1.4c Suppliers and meal plan's needs in specific health or social context</i> <i>T1.4d Logistics system and energy consumption</i>
		COMMODITY STUDIES	<i>T1.4e Shelf life of the products and the methods of conservation</i>



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		GASTRONOMY	<i>T1.4f The construction of short supply chains and the relationship with producers</i>
		FOOD HYGIENE	<i>T1.4g HACCP system and storage phase</i>
LO1-C-1	0,4		T1.5
Identify and use local and seasonal ingredients in an appropriate way, identify local food suppliers and establish a network with them in order to guarantee constant food supply, also exploiting ICTs and dedicated e-data resources, being aware of the regional food supply chain and of how seasonal products are delivered		ECONOMY	<i>T1.5a The Seasonality of local food</i> <i>T1.5b Food seasonal prices</i> <i>T1.5c The best practices for seasonal food delivery</i> <i>T1.5d The regional food supply chain</i> <i>T1.5e The commercial network with suppliers</i>
		INFORMATION TECHNOLOGY	<i>T1.5f ICT channels for screening and contacting suppliers.</i>
LO1-D-1	0,9		T1.6
<i>Promote full use of ingredients, raw materials and leftovers according to Hazard Analysis Critical Control Point-Concept (HACCP) and local law</i>		HYGIENE	<i>T1.6a Hygienic management of leftovers during the production process</i> <i>T1.6b The mishandling of products and leftovers and foodborne illnesses</i>
		GASTRONOMY	<i>T1.6c The HACCP steps related to food preparation and the use of leftovers</i> <i>T1.6d Leftovers cooking techniques</i> <i>T1.6e Recipes that optimize the use of ingredients by minimizing residues and production waste</i>
LO1-D-2	0,4		T1.7
Introduce measures for the prevention, separation and proper disposal of waste in the kitchen and ensure compliance with these measures by all members of the kitchen team		GASTRONOMY (wbl)	<i>T1.7a Management of waste and sustainability related issues</i>



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LO1-D-3	<i>0,1</i>		T1.8
Create a food waste assessment plan, use it regularly, and share the results with all the staff		GASTRONOMY (wbl)	<i>T1.8a Management and waste assessment plan</i>

MODULE 2

TITLE	SCREEN ASSESS MONITOR ON CLIENT LEVEL
ASSIGNED ECVET POINTS	6,1
STUDENTS WORKLOAD	152,5 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T2
LO2-A-B1	<i>1</i>		T2.1
Understand the impact of nutrition on development of diseases and human metabolism in a life-course approach and vice versa		DISEASES OF METABOLISM AND DIET	<i>T2.1a Epidemiological research on the human metabolism</i> <i>T2.1b Needs assessments</i> <i>T2.1c Frequency of diseases affecting human metabolism</i> <i>T2.1d Complex diseases</i>
		GENERAL PATHOLOGY	<i>T2.1e Diseases of the digestive system and human metabolism changes in taste, smell and absorption of food</i> <i>T2.1f Medical treatments and impact of food intake</i>
		COLLECTIVE NUTRITION	<i>T2.1g Basic nutritional needs of older citizens and patients</i>



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LO2-A-B2	1,2		T2.2
Know basics in physiology of taste/smell, be aware of how different conditions affect taste/smell and of possible clients' food intake needs with respect to taste/smell deterioration, and detect these needs in collaboration with health professionals		ANATOMY	T2.2a Anatomy of the human gastrointestinal system
		PHYSIOLOGY, PATHOLOGY AND GENETICS OF TASTE	T2.2b Physiology of taste and smell T2.2c Different diseases affecting taste and smell T2.2d Consequences of diseases affecting taste and smell T2.2e Nutritional needs of people with diseases affecting the smell and taste T2.2f Nutritional needs of people with diseases affecting the smell and taste
LO2-A-B3	1,2		T2.3
Be aware of the naub swallowing problems which raise the need for adapted food and be able to tackle these problems and conditions in daily work in collaboration with health professionals		PATOLOGY	T2.3a Pathology of most common swallowing disorders T2.3b The main swallowing problems T2.3c Medical conditions that can affect the need for food texture modification
LO2-C-D0	0,5		T2.4
Know and understand the concepts of 'Primary Food Care', 'Gastrology' and 'Gastro-engineering' in healthcare and their role to promote active and healthy ageing, is aware of the main characteristics of the CGE professional profile, of what a "gastrological intervention" implies and of the main "gastrological tools" a CGE can rely on		Gastroenterology	TBD



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LO2-C-D1	1,6		T2.5
Identify and select test protocols on taste disturbances and use them to detect and classify taste deterioration and to monitor it		EPIDEMIOLOGY OF EATING HABITS	<i>T2.5a The main test protocols on taste deterioration</i> <i>T2.5b Test protocols for selection the one for a client</i> <i>T2.5c The correct criteria for test protocols on taste deterioration</i> <i>T2.5d Identification of failure situations</i>
		HEALTH STATISTICS	<i>T2.5e Strategies of using critically selected test protocols on taste impairment</i>
LO2-C-D2	0,6		T2.6
Create solutions for the results of assessment from a CGE perspective and within the context of a comprehensive and holistic food care approach		NUTRITION AND COLLECTIVITY	<i>T2.6a The comprehensive nutritional care</i> <i>T2.6b Professions involved in comprehensive nutritional care and their function</i>
		HEALTH STATISTICS	<i>T2.6c Solutions for assessment results</i>

MODULE 3

TITLE	THE PROPER ICT TOOLS FOR ASSESSMENT
ASSIGNED ECVET POINTS	1,9
STUDENTS WORKLOAD	47,5 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T3
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LO2-C-D3	1		T3.1
Know the main ICT tools for screening and assessing clients' individual food preferences and individual food intake needs and wishes, be able to select the proper ones and be able to use them, complying with data privacy and confidentiality guidelines and in collaboration with health professionals		INFORMATION TECHNOLOGY	<p><i>T3.1a The most common ICT tools available regionally and their function for screening and assessing clients individual food preferences and individual needs and wishes</i></p> <p><i>T3.1b The most important ICT tools for screening and assessing clients' individual food preferences available at international level</i></p> <p><i>T3.1c The data privacy and confidentiality guidelines regarding the use of ICT tools for screening and assessing clients individual food preferences</i></p>
LO2-C-D4	0,8		T3.2
Know the main ICT tools for recording and monitoring assessment results, as well as interventions, be able to select the proper ones and be able to use them, complying with legal ICT structure, addressing all data privacy and applicable confidentiality guidelines		INFORMATION TECHNOLOGY	<p><i>T3.2a The common ICT tools of culinary interventions</i></p> <p><i>T3.2b The ICT tools for recording and monitoring assessment results, as well as culinary interventions</i></p>
		STATISTICS	<i>T3.2c The assessment results of culinary interventions</i>
LO2-E1	0,1		
Know the main techniques and tools to detect clients' meal satisfaction and be able to apply this feedback in daily practice, in collaboration with health professionals		COMMUNICATION	<i>T3.3a The main tools and techniques tools for detection of clients' satisfaction and impressions</i>
		WORK PSYCHOLOGY	<p><i>T3.3b The cooperation with the client to enhance the care outcome and high satisfaction</i></p> <p><i>T3.3c The different counselling techniques to ensure effectiveness and appropriateness</i></p>



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MODULE 4

TITLE	CREATE RECIPES FOR A GENERAL POPULATION AND FOR PEOPLE WITH SPECIFIC NEEDS, COMPLYING WITH RECOMMENDATIONS OF HEALTH PROFESSIONALS
ASSIGNED ECVET POINTS	8
STUDENTS WORKLOAD	200 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T4
LO3-A1	1		T4.1
Understand cultural, religious or other trending food choices, recognize their impact on meals and cooking and adapt dishes considering them		FOOD TRADITION AND RELIGIOUS CULTURE	<i>T4.1a Cultural anthropology and relationship of food and beverages</i> <i>T4.1b Food prescriptions and prohibitions in the various cultures and religions</i>
		DIETOLOGY IN PHYSIOLOGICAL AND PATHOLOGICAL CONDITIONS	<i>T4.1c Food reference models (vegan and vegetarian diets)</i> <i>T4.1d The nutritional lacks connected with the exclusion of specific food item</i>
		GASTRONOMY	<i>T4.1e The physical cooking methods and nutritional impact</i> <i>T4.1f Methods to adapt dishes for specific target groups</i>
LO3-A-2	1		T4.2
Follow food trends, try out new mwals/recipes and evaluate the		ECONOMY	<i>T4.2a The food trends</i> <i>T4.2b The scientific evaluation of new food trends</i>



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trial phase in terms of its feasibility in the business/service, also in collaboration with actors external to the kitchen/institution			<p><i>T4.2c Standardization and validation tools to evaluate feasibility of new meals/recipes in collaboration with multidisciplinary team and stakeholders</i></p> <p><i>T4.2d The external actors to try out new meals/recipes as well as gastronomic services</i></p> <p><i>T4.2e The analysis cost/price of food and beverages product with budgetary analysis techniques</i></p> <p><i>T4.2f Key parameters to be tested and describe evaluation methods for recipe/meal trials in terms of feasibility</i></p>
		GASTRONOMY	<i>T4.2g Different gastronomic services and criteria for needs assessment about the services</i>
LO3-B1	2,2		T4.3
Collaborate to create standardized menu plans, grounded on disease adapted meals, starting from clients' needs assessment and in collaboration with health professionals		DIETOLOGY IN PHYSIOLOGICAL AND PATHOLOGICAL CONDITIONS	<p><i>T4.3a The standardized and evidence-based diets (eg. Nutritional principles and Guidelines for a healthy diet and LARN)</i></p> <p><i>T4.3b Key nutritional parameters and prescription for diets in pathological conditions</i></p> <p><i>T4.3c Nutritional needs and composition of balanced menus</i></p>
		FOOD CHEMISTRY	<i>T4.3d Principles of food chemistry to elaborate tasteful dishes adapting nutritional parameter for standardized and evidence-based diet plan recommended by health professionals</i>
		WORK PSYCHOLOGY	<i>T4.3e The professional boundaries with other health professionals</i>
LO3-B-2	0,8		T4.4
Adjust baseline menus to satisfy individual preference and needs		PHYSIOLOGY AND PATHOLOGY	<i>T4.4a Physiological and pathological needs of individuals</i>
		GASTRONOMY	<p><i>T4.4b Baseline menu and balanced menus (e.g. balanced ratio of macro- and micronutrients, food frequencies, economic and ecological sustainability, portion size, etc.)</i></p> <p><i>T4.4c The methods to adjust baseline menu to individual preferences</i></p>



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		CHEMISTRY	<i>T4.4d Principles of food chemistry to elaborate tasteful dishes adapting nutritional parameter to individual needs and preferences according to physiological and pathological needs</i>
LO3-B3	1,6		T4.5
Know the effects of cooking on ingredients/raw materials and select the proper methods, maximizing the freshness and quality of the ingredients/raw materials		GASTRONOMY	<i>T4.5a Modifications of the nutritional principles through cooking and the effect on ingredients</i> <i>T4.5b The range of wet, dry, and non-thermal cooking methods and their appropriate uses for various ingredients and menus</i> <i>T4.5c Phases, times, tools and methods of processing, cooking and preserving products</i> <i>T4.5d Techniques for the preparation and service of products according to pathological needs, considering food preference, in collaboration with health professionals</i> <i>T4.5e The effects of cooking on ingredients and outline appropriate cooking methods to preserve nutritional properties and taste and to maximizing quality and freshness of ingredient</i>
LO3-D1	0,8		T4.6
Know the basics of chemistry of food and combine food items in order to both respect food quality and obtain appetizing menus adapted to care settings		FOOD CHEMISTRY	<i>T46.a Chemistry of food and how their components affect each other</i> <i>T46.b Chemical interaction and synergies among ingredients to enhance proprieties of ingredients for each tasteful preparation and equilibrate menus</i> <i>T46.c Chemical interaction and synergies among ingredients to reach the maximum nutritional value for each tasteful preparation and the equilibrate menus</i> <i>T46.d Chemistry and nutritional value of the different type of beverages</i>
		GASTRONOMY	<i>T46.e Nutritional balance in meals/recipes</i> <i>T46.f Appetizing menus according to national catering standard adapted to care setting</i>
LO3-D2	0,2		T4.7
Schedule meals supply according to clients' needs and living environment, also taking into account the main accessibility issues for older adults and disabled people which could occur in the different care settings		WORK PSYCHOLOGY	<i>T4.7a Different typology of living environment of care settings</i> <i>T4.7b The main accessibility issues for older adults and disabled people which could occur in the different care settings</i>
		GASTRONOMY	<i>T4.7c The different strategies for meals supply for older and disable people</i>
		FOOD AND HUMAN NUTRITION	<i>T4.7d The nutritional parameters for diets for older adult and in the different disabled conditions</i>



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LO3-D3	0,4		T4.8
Create menus including beverage recommendations for the planned menu sequences		GASTRONOMY (WBL)	<i>T4.8a Proper combinations of beverages with menus</i> <i>T4.8b The rules for food and beverage pairing to create a tasteful menu</i>

MODULE 5

TITLE	MANAGE THE KITCHEN AND COORDINATE PERSONNEL
ASSIGNED ECVET POINTS	3,5
STUDENTS WORKLOAD	87,5 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T5
LO4-A-1	0,6		T5.1
Create budgets for each meal, according to food seasonal price, non-food supplies, and expected equipment durability and lifetime		ECONOMY	<i>T5.1a The basic principles of accounting for budget management</i> <i>T5.1b The budget calculation formulas, to be used applying seasonal prices</i>
		GASTRONOMY	<i>T5.1c Identification required non-food supplies</i> <i>T5.1d The durability and lifetime of kitchen equipment</i>
LO4-A2	0,2		T5.2
Calculate and manage the kitchen budget of food, utilities and personnel		INFORMATION TECHNOLOGY	<i>T5.2a software and spreadsheets</i>
		ECONOMY	<i>T5.2b Utilities and personnel in the kitchen</i> <i>T5.2c The workload (in terms of personnel time cost) associated to each recipe and menu</i>



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LO4-A-3	0,5		T5.3
Make budget plans, negotiate them with superiors and assure they are followed by the kitchen personnel		ECONOMY	<i>T5.3a Budget plans for specific time periods</i>
LO4-B1	0,2		T5.4
<i>Identify control parameters, evaluate the quality of the kitchen team's performance, conduct employee appraisals and provide feedback to superiors</i>		HUMAN RESOURCE MANAGEMENT	<i>T5.4a The kitchen team T5.4b Parameters to evaluate quality of kitchen team's performance</i>
LO4-C1	0,4		T5.6
Plan daily work optimizing workflow, draw up the work schedule and shifts for the kitchen team (balancing team capability) and ensure through constant monitoring that is followed by the staff		WORK PSYCHOLOGY	<i>T5.6a The main elements of an effective work schedule T5.6b The main criteria to balance team capability in order to plan effective shifts T5.6c The different capabilities and needs of kitchen team when planning work schedule and shifts T5.6d The activities that the kitchen staff should carry out in each shift Evaluation staff capacities</i>
LO4-C-2	0,5		T5.7
Analyze and optimize the processes in the kitchen organization, ensuring the smooth flow of food from preparation to service through communication between the		GASTRONOMY (WBL)	<i>T5.7a The processes in the kitchen organization from preparing to food to service</i>
		COMMUNICATION IN WINE-GASTRONOMY	<i>T5.7b The communication between kitchen and service department</i>



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kitchen and the service department			
LO4-C-3	0,2		T5.8
Know and apply the proper leadership strategies, being able to plan work, organize tasks, and delegate to others and to develop decision-making strategies		HUMAN RESOUC E MANAGEMENT (WBL)	<i>T5.8a The main leadership and staff management in the working contexts in the primary food care sector</i>
LO4-D1	0,4		T5.9
Define equipment maintenance schedules and monitor, assess, and record the adherence to it		GASTRONOMY	<i>T5.9a The problems of kitchen equipment T5.9b The maintenance routines for each piece of equipment T5.9c The schedules for the and frequency of maintenance operations</i>
LO4-D2	0,2		T5.10
Ensure the adequate and efficient use and the proper cleaning of kitchen machines, equioment and utensils performing quality controls in compliance with quality national standards		HYGIENE	<i>T5.10 a The quality standards concerning kitchen equipment and utensil's hygiene T5.10b The proper cleaning tools for kitchen machines, equipment and utensils</i>
LO4-D3	0,3		T5.11
Align workstations in the kitchen with the requirements of the individual kitchen stations		GASTRONOMY (WBL)	T5.11a Workstations in the kitchen with the requirements of the individual kitchen stations



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MODULE 6

TITLE	ENSURE QUALITY OF FOOD AND FOLLOW SAFETY REGULATIONS
ASSIGNED ECVET POINTS	2
STUDENTS WORKLOAD	50 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T6
LO5-A-B-1	0,6		T6.1
Comply and monitor compliance with HACCP and with national and local hygiene quality standards in the preparation, storing, delivering and discarding food and beverages		MICROBIOLOGY	T6.1a Cycle of bacteria transmissions
		FOOD HYGIENE	<p>T6.1b Describe the parameters of the HACCP critical control points</p> <p>T6.1c GMPs (Good manufacturing process) in relation to the possible pollution identified in the critical points of the HACCP system</p> <p>T6.1d National and local hygiene quality standards</p> <p>T6.1e HACCP regulations and other legal dispositions for meal preparation, food storing and waste management</p> <p>T6.1f HACCP in the different phases identified in the production</p> <p>T6.1g HACCP in eventual transport to the product's destination</p> <p>T6.1h Updates on rules and regulations</p> <p>T6.1i Risks associated with non-compliance with rules and regulations</p> <p>T6.1l Proper methods for the continuous monitoring of compliance with rules or regulation, by all staff</p>
LO5-A-B2	0,6		T6.2
Understand the risk of common foodborne diseases and the main causes of food		MICROBIOLOGY	T6.2a The main causes of food deterioration (bacteria, viruses, toxins, contaminants)
		HYGIENE	T6.2b The main foodborne diseases



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deterioration; apply this knowledge to food safety		FOOD HYGIENE	<p><i>T6.2c Parameters to recognize when a food is altered or deteriorated.</i></p> <p><i>T6.2d The possible failure situations</i></p> <p><i>T6.2e The procedures to minimize the risk of foodborne diseases, in all stages of meal preparation</i></p>
LO5-A-B-3	0,2		T6.3
Create instructions for staff about the measures to implement in order to comply with safety, hygiene and quality standards and laws and properly document implemented measures		GASTRONOMY	<p><i>T6.3a The importance of proper communication with kitchen staff</i></p> <p><i>T6.3b Tools to communicate and monitor procedures</i></p> <p><i>T6.3c Measures to comply with rules and standards</i></p>
LO5-A-B4	0,4		T6.4
Promote health and safety within the working environment performing workplace evaluations for all stations in the kitchen and recording their results		FOOD SAFETY GASTRONOMY	<p><i>T6.4a Safety procedures in a kitchen environment</i></p> <p><i>T6.4b The procedure to perform workplace evaluations for all stations in the kitchen</i></p> <p><i>T6.4c The procedure to record workplace evaluations</i></p> <p><i>T6.4d Proper tools and methods to monitor workflow and safety in a kitchen environment</i></p>
LO5-C1	0,2		T6.5
Plan and execute food tasting for healthcare professionals to test and review menus and new dishes		GASTRONOMY FOOD SCIENCE	<p><i>T6.5a The procedure to plan and conduct food tastings</i></p> <p><i>T6.5b The analyses of collected data from food tastings to improve meals and menus</i></p> <p><i>T6.5c The changes to meals and menus, based on a critical assessment of the opinions of health professionals</i></p>



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MODULE 7

TITLE	USE AND ADAPT COOKING TECHNIQUES TO THE SPECIFIC CARE SETTING AND CLIENT
ASSIGNED ECVET POINTS	9,6
STUDENTS WORKLOAD	240 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T7
LO6-A-B1	1,4		T7.1
Know the main cooking techniques and select the appropriate ones for the different healthcare contexts in order to maintain the nutritional properties and maximize the nutritional value of the ingredients		GASTRONOMY FOOD TECHNOLOGY	T7.1a Select the most appropriate cooking technique to reach maximum nutritional value of ingredients T7.1b Adapt the appropriate cooking techniques to the different food ranges T7.1c Adapt the appropriate cooking techniques to the different healthcare context
LO6-A-B2	2,2		T7.2
Use or supervise the use of established, innovative and complex preparation methods, also combining and applying various cooking methods simultaneously and developing creative solutions		GASTRONOMY FOOD TECHNOLOGY	T7.2a The innovative and complex preparation techniques T7.2b The most appropriate combination of cooking methods to reach the maximum nutritional and tasteful potential of each ingredient in innovative and complex preparation T7.2c Define criteria to combine various cooking methods simultaneously
LO6-A-B3	1,2		T7.3
Prepare cold and hot dishes (or supervise their preparation) according to clients' requirements and the		ALLERGIES AND INTOLERANCES TO ADVERSE REACTIONS OF FOOD FOOD LAW	T7.3a Food intolerance e allergies T7.3b The main EU rules to operate with allergic / intolerant clients (e.g. Reg. UE n.1169/2011), T7.3c The main recognized allergens



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meal plan approved by healthcare professionals, taking into account food intolerances and allergies		ALLERGIES AND INTOLERANCES TO ADVERSE REACTIONS OF FOOD GASTRONOMY	<i>T7.3d The parameters to elaborate a database about requirements and types of allergies and intolerances</i> <i>T7.3e Alternative ingredients in the most common preparations for the allergic and intolerant population</i> <i>T7.3f The methods to define meal plan according to the health care indication and client requirements</i>
LO6-A-B4	0,4		T7.4
Prepare beverage recommendations for all dishes and communicate them to the service team		WINE-GASTRONOMY	<i>T7.4a Different beverages for different dishes</i> <i>T7.4b The beverages that are healthy and suitable for dishes</i>
LO6-A-B5	0,2		T7.5
Prepare the decoration and serving plan in collaboration with the service team		GASTRONOMY WINE- GASTRONOMY	<i>T7.5a The importance of food presentation as part of the meal experience</i> <i>T7.5b The trends in food presentation</i> <i>T7.5c The styles of food service</i> <i>T7.5d Garnishes and accompaniments for traditional dishes</i> <i>T7.5e The different decorations for dishes</i> <i>T7.5f The main roles of each member of the service team</i> <i>T7.5g The different serving plans according to clients' needs</i>
LO6-C1	1		T7.6
Design menus and a la carte dishes and apply proper food preparation and cooking techniques, also developing innovative solutions, for different food forms and diets and respect cultures and religions (e.g. vegetarians, vegans, gluten-free, allergy ...)		FOOD SCIENCE	<i>T7.6a Different types and styles of menu</i> <i>T7.6b The parameters to balance menu in terms of nutrition and taste</i> <i>T7.6c Food preparation and cooking techniques while respecting cultures and religions</i>
		DIETOLOGY	<i>T7.6d The description of different diets</i>
		FOOD CHEMISTRY	<i>T7.6f Principles of food chemistry to elaborate tasteful dishes in different pathological condition adapting nutritional parameter recommended by health professionals</i>
LO6-C2	0,5		T7.7
Recognize the model diets (vegan, vegetarian, zone diet, Mediterranean diet...) and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients		DIETOLOGY	<i>T7.7a Different model diets (vegan, vegetarian, zone diet, Mediterranean diet...)</i> <i>T7.7b The evaluation and selection of ingredients for dishes that are suitable for model diets</i> <i>T7.7c The nutritional lacks connected with the exclusion of specific food items</i>



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LO6-C3	0,5		T7.8
Recognize the food prescriptions and restraints of the main religions and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients		FOOD SCIENCE	<i>T7.8a The food prescriptions and restraints of main religions and cultures</i>
		CULTURE AND RELIOUS TRADITION	<i>T7.8b The appropriate combination of ingredient permitted for each culture and religion</i>
		GASTRONOMY	<i>T7.8c The appropriate procedure for ingredient preparation permitted for each culture and religion</i>
			<i>T7.8d The local food for the preparation of dishes according to religious food prescription</i>
LO6-D1	1		T7.9
Define consistency and texture of food in a creative, balanced and flavorful way		DIETOLOGY	<i>T7.9aDiets with modified consistency</i>
		GASTRONOMY	<i>T7.9b The preparation of dishes with flavor in balanced diets with modified consistency</i> <i>T7.9c Advanced techniques to apply consistency changes in dishes</i>
		CHEMISTRY OF FOOD PROCESSING	<i>T7.9d Description of different typology of thickeners and their different chemical composition</i> <i>T7.9e Description of different rheological characteristic for typology of thickeners</i>
LO6-D2	0,6		T7.10
Know the chemical composition of fortified food and correctly perform fortification in meals		FOOD TECNOLOGY	<i>T7.10a Description of different techniques for fortifying food</i> <i>T7.10b The difference of chemical composition of fortified food and enriched food</i> <i>T7.10c The difference of mandatory fortification and voluntary fortification</i> <i>T7.10d The specific fortification for each food and the correct combination of the ingredients</i> <i>T7.10e The identification of the nutritional need of the added component to fortified food to determine the exact quantity of ingredient</i>
		FOOD LAW	<i>T7.10f The US and EU Regulation on the addition of vitamins, minerals, and other substances to foods</i>
LO6-D3	0,6		T7.11



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Apply creative and innovative kitchen techniques to adapt recipes for people with taste changes or consistency adjustments (including hot, cold, crisp, soft, moist, dry)	PHYSIOLOGY OF TASTE AND GENETICS	<i>T7.11a The physiology and the genetic of taste</i>
	SENSORY ANALYSIS	<i>T7.11b The techniques to define the level of perception of each taste, to define the level of perception of consistency and to define the level of perception of smell T7.11c How to recognize when taste changes or consistency adjustments are needed</i>
	GASTRONOMY	<i>T7.11d Creative and innovative kitchen techniques to adapt recipes for people with taste changes or consistency adjustments (including hot, cold, crisp, soft, moist, dry)</i>

MODULE 8

TITLE	COMMUNICATE, INTERACT AND COLLABORATE WITH CLIENTS AND INTERPROFESSIONAL TEAM
ASSIGNED ECVET POINTS	1,4
STUDENTS WORKLOAD	35 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T8
LO7-A-1	0,5		T8.1
Define a customer satisfaction protocol and place customer service at the hearth of decision-making and activities		ECONOMY	<i>T8.1a The different types of service and the correlation with the characteristics of the user</i> <i>T8.1b The main techniques and tools to design a protocol</i> <i>T8.1c Techniques and tools for detecting expectations and analyzing satisfaction.</i> <i>T8.1d Procedures and techniques for organizing and drafting initiatives aimed at building customer satisfaction.</i> <i>T8.1e Customer segmentation and clustering techniques.</i> <i>T8.1f The basic elements of CRM (Customer Relationship Management) applied to collective catering</i> <i>T8.1g The peculiarities of the service offer in relation to the forecast budget</i>



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L07-B-1	<i>0,1</i>		T8.2
Understand the impact of food and nutrition on social determinants of health and vice versa and leverage attractive taste to promote healthy recipes and healthier nutritional habits, also providing advice and guidance to other professionals on culinary matters to educate clients	<i>COLLECTIVE NUTRITION</i>		<p>T8.2a The impact of food and nutrition on social determinants of health and vice versa</p> <p>T8.2b The possible advice and guidance on culinary matters he/she could provide to support different professionals to educate clients</p> <p>T8.2c Nutritional principles and Guidelines for a healthy diet</p>
L07-B-2	<i>0,1</i>		T8.3
Prepare and apply client counselling, in collaboration with healthcare professionals, to promote healthy choices and behaviors	<i>WORK PSYCHOLOGY</i>		<p>T8.3a The basic notions of counselling</p> <p>T8.3b The main counselling techniques</p> <p>T8.3c The role of CGE in client counselling with respect to the role of healthcare professionals</p>
L07-C-1	<i>0,5</i>		T8.4
Be aware of the main roles and responsibilities of health/social care professionals in food care and work coherently, acting as a member of an interprofessional team, maximizing the added value of each professional, and identifying possibilities for interdisciplinary development and cooperation	<i>WORK PSYCHOLOGY</i>		T8.4 Roles and responsibilities of the various staff members or collaborators and of health/social care professionals in food care



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LO7-C-2	0,2		T8.5
Know the characteristics of successful teams and the main strategies for		WORK PSYCHOLOGY	T8.5 The main teamwork strategies and techniques in the daily working context T8.5b The main leadership strategies and techniques and rules to operate in teamwork T8.5c The behaviors that encourage or prevent effective teamwork

MODULE 9

TITLE	PROBLEM-SOLVING TECHNIQUES AND DIGITAL COMPETENCE IN DAILY WORK
ASSIGNED ECVET POINTS	3
STUDENTS WORKLOAD	75 h
TIME SCHEDULE	

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T9
LO7-C-3	0,4		T9.1
Know, select and apply the proper communication and mutual support techniques for inter-professional teams and change and observe behaviors		COMMUNICATION	T9.1a The main communication and mutual support techniques for inter-professional teams T9.1b The main elements of organizational culture and communication
LO7-C-4	0,4		T9.2
Apply creative thinking techniques developing creative solutions to abstract problems, propose solutions and discuss with goal-orientated attitude, reaching shared decisions, applying		COMMUNICATION	T9.2a The creative thinking techniques: Brainstorming, The Insights Game, Mood boards, Random Words (Random Input), Storyboarding, Metaphorical thinking, Mind mapping. T9.2b The main problem-solving techniques, such as DMAIC (Define, Measure, Analyze, Improve, Control) T9.2c The GOPP (Goal Oriented Project Planning)



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the main problem-solving technique			
LO7-C-5	0,3		T9.3
Exercise management and supervision in contexts of work, reviewing and developing performance of self and others		WORK PSYCHOLOGY	<i>T9.3a The main techniques for staff management and supervision</i>
LO7-D-1	0,2		T9.4
Identifies opportunities to create value, develop creative and purposeful ideas, develop a vision to turn ideas into action, identify suitable ways for valuing ideas and assess consequences of them		WORK PSYCHOLOGY	<i>T9.4a What makes an opportunity to create value</i> <i>T9.4b Challenges in his/her own workplace that he/she can contribute to solving.</i> <i>T9.4c Needs in his/her own workplace and surroundings that have not been met.</i> <i>T9.4d The different roles the public, private and third sectors play in his/her region or country.</i>
LO7-D-2	0,2		T9.5
Identify individual and group strengths and weaknesses, mobilizes resources needed to turn ideas into action, be aware of the idea cost and financial implications and engage relevant stakeholders for the action		ECONOMY	<i>T9.5a The principles of circular economy and resource efficiency.</i> <i>T9.5b The main criteria to identify a cost of an idea cost and the financial implications</i> <i>T9.5c How to engage relevant stakeholders for a specific action</i> <i>T9.5d Public and private services which can support his/her value-creating activity (for example, incubator, social enterprise advisors, start-up angels, chamber of commerce).</i> <i>T9.5e How to draw up a budget for a value creating activity.</i> <i>T9.5f The different forms of value-creating activities (a business, a social enterprise, a non-profit organization and so on) and can have different structures of ownership (individual company, limited company, co-operative and so on).</i>
LO7-E-1	0,5		T9.6



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Browse, search, filter and manage data, information and digital content, evaluating them according to the specific context of application		INFORMATION TECHNOLOGY	<p><i>T9.6a The information needs</i></p> <p><i>T9.6b The searches of data, information and content in digital environments</i></p> <p><i>T9.6c The access to these data, information and content, and the navigation between them.</i></p> <p><i>T9.6d The personal search strategies</i></p> <p><i>T9.6e The main national/regional healthcare tools for users' record</i></p> <p><i>T9.6f The main tools supporting the creation of a data collection (e.g. electronic sheets) in order to record client's history, in compliance with national/regional healthcare tools for users' record</i></p>
LO7-E-2	0,2		T9.7
Interact, share and collaborate through variety of digital technologies and select appropriate digital communication means for a given context		INFORMATION TECHNOLOGY	<p><i>T9.7a The main digital technologies and routine appropriate digital communication means for his/her own working context.</i></p> <p><i>T9.7b The main appropriate digital technologies to share data, information and digital content in his/her own working context.</i></p> <p><i>T9.7c Well-defined and routine digital tools and technologies for collaborative processes.</i></p> <p><i>T9.7d The role as intermediary for sharing information and content through well-defined and routine digital technologies.</i></p> <p><i>T9.7e Well-defined and routine behavioral norms and know-how in digital environments.</i></p> <p><i>T9.7f Well-defined and routine communication strategies adapted to an audience</i></p> <p><i>T9.7g Well-defined and routine cultural and generational diversity aspects to consider in digital environments</i></p>
LO7-E-3	0,3		T9.8
Know the main privacy issues and protect his/her own end users' personal data and privacy in digital environments		INFORMATION TECHNOLOGY	<p><i>T9.8a Well-defined and routine ways to protect his own and users' personal data and privacy in digital environments</i></p> <p><i>T9.8b Well-defined and routine ways to use and share personally identifiable information while protecting myself and others from damages.</i></p> <p><i>T9.8c Well-defined and routine privacy policy statements of how personal data is used in digital services</i></p>
LO7-E-4	0,5		T9.9
Know the main current digital tools dedicated to food composition, ingredients, combination, properties, treatments, regional resource		INFORMATION TECHNOLOGY GASTRONOMY	<p><i>T9.9a The main criteria to evaluate and select the main ICT tools dedicated to food</i></p> <p><i>T9.9b The main ICT tools dedicated to food, such as the ones for managing food composition, ingredients, combination, properties, treatments, regional resources</i></p>

14 The Campania's Pilot

14.1 Localized Curriculum

The Pilot course in Campania (Italy) is managed by Fondazione ITS BACT ("Fondazione Istituto Tecnico Superiore per le Tecnologie innovative per i Beni e le Attività Culturali e il Turismo"), with operational headquarters in Naples, in collaboration with the institutional regulatory body Regione Campania.

The pilot will be a Vocational Educational Training course aimed to achieve a qualification which will be included in the Regional Qualification System. The qualification will be afferent to the National Repertory of Qualifications and referenced to EQF.

The course consists of 40 ECVET points corresponding to 1000 hours of workload and aims to achieve EQF level 5. At the beginning, according to the cases proposed by Si4life, as the EQF LEVEL was 5 and the workload corresponded to 1000 hours, ITS BACT assigned 60 ECVET points to the course. Then, to homogenize the Italian pilots ITS BACT decided to decrease the number of ECVET points from 60 to 40.

EQF LEVEL	ESTIMATED WORKLOAD	ECVET POINTS RANGE
5	From 1 year to 1,5 years of formal training From 1500 to 2250 hours of workload	60 to 90

CASE A can correspond to curricula linked to Higher Education, where 60 to 90 ECTS are awarded to students. An example of this case are courses set up in Italy by ITS, which are Higher Technical Education Institutes, defined by law, and organized by the central (national) government in collaboration with the territorial government of the regions. Courses organized by ITS usually last 4 semesters for a total of 1800/2000 hours

In compliance with the EU Curriculum requirements, the specialization course will be addressed to people endowed with a:

- Diploma of "Foodservice Technician Industry" (EQF 4) obtained from a State Professional Institute for Foodservice and Hospitality Industry;
- Diploma of "Eno-gastronomy and Hotel Hospitality" (EQF 4) obtained from a Professional Institute Enogastronomy and Hotel Hospitality;
- Diploma of "Liceo del Gusto Campano" ("Campania-Taste Lyceum") (EQF 4) obtained from "I.S.I.S. Ferraris" of Caserta;
- A Professional qualification "Foodservice Technician - Chef" (EQF 4) obtained from Regione Campania, or equivalent qualification issued by other Regions (according to the equivalence tables of National Qualification Framework, URL: <https://atlantelavoro.inapp.org/>).

The recognition of formal, non-formal and informal competences possibly already possessed by applicants will be managed by ITS-BACT and Regione Campania (as accredited entities) and provided in the form of credits for the training path, according to the standards and proceedings ruled by the Region (Decree no. 589/2019).

In line with the EU Curriculum, the course is designed for the acquisition of specialist level skills in the Foodservice Industry.

The certificate obtained at the end of the course (after a proper public examination) will consist of the upcoming Regional professional qualification of "CGE - Chef Gastro Engineer" (EQF 5).

The duration is set at 1000 hours, 40% of which will be Internship or Work Placement. The remaining 60% of the training course will be carried out in lab for a minimum of 30%. On an experimental basis, for the theoretical parts only, the provision of E-learning contents is allowed within a maximum limit of 15% of these theoretical parts (due to the limits set by Italian law).

The number of participants is set at 25.

All the output competencies of the qualification "CGE - Chef Gastro Engineer" will be mapped into ECVET points and the competencies certified during the path will be equalized to ECTS.

In this task, Regione Campania is going to carry out the following activities:

- Authorization of the pilot course "Chef gastro-engineering", based on the CGE profile integrated in the Regional Registry of professions, named "Repertorio Regionale dei Titoli e delle Qualificazioni (RRTQ)" after its public approval by the UOD 50.11.04 of Regione Campania;
- Authorization of the public call for selection of students and monitoring about their recruitment;
- Identification, validation and recognition of the previous competences on the basis of the regional guidelines about the formal, non-formal and informal learning;
- Monitoring and Audit of the execution of the pilot course "Chef gastro-engineering", which will take place in Campania.

Regione Campania, as a Certifying Body, will issue a "Vocational Training Qualification Certificate" compliant with the national law (Decreto Legislativo 16 Gennaio 2013, n. 13) referring to the Qualification of "Chef gastro-engineering".

The course modules for the qualification of Chef Gastro-Engineering are described in detail below:

1. Module 1 - MANAGE SUPPLIERS AND BUY IN SUSTAINABLE FOOD INGREDIENTS:
4,4 ECVET points, 112,5 hours.
2. Module 2 - SCREEN ASSESS MONITOR ON CLIENT LEVEL:
6,1 ECVET points, 152,5 hours.
3. Module 3 - THE PROPER ICT TOOLS FOR ASSESSMENT
1,9 ECVET points, 47,5 hours
4. Module 4 - CREATE RECIPES FOR A GENERAL POPULATION AND FOR PEOPLE WITH SPECIFIC NEEDS, COMPLYING WITH RECOMMENDATIONS OF HEALTH PROFESSIONALS:
8 ECVET points, 200 hours.
5. Module 5 - MANAGE THE KITCHEN AND COORDINATE PERSONNEL
3,5 ECVET points, 87,5 hours.
6. Module 6 - ENSURE QUALITY OF FOOD AND FOLLOW SAFETY REGULATIONS:
2 ECVET points, 50 hours.
7. Module 7 - USE AND ADAPT COOKING TECHNIQUES TO THE SPECIFIC CARE SETTING AND CLIENT:
9,6 ECVET, 240 hours.
8. Module 8 - COMMUNICATE, INTERACT AND COLLABORATE WITH CLIENTS AND INTERPROFESSIONAL TEAM:
1,4 ECVET points, 35 hours.
9. Module 9 - PROBLEM-SOLVING TECHNIQUES AND DIGITAL COMPETENCE IN DAILY WORK:
3 ECVET points, 75 hours. The course modules for the qualification of Chef Gastro-Engineering are described in detail below.

The figures below illustrate two main sheets drawn from the Campania's flexibility tool representing the distribution of ECVET points among the UoLs (Figure 17, Figure 18) and the distribution of LOs among the modules (Figure 19).

ASSIGNED ECVET POINTS	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	TOTAL
	4,5	6,1	1,9	8	3,5	2	9,6	1,4	3	0	40

UoL 1											ECVET POINTS per UOL
LO1-A-1	0,6	0	0	0	0	0	0	0	0	0	4,5
LO1-A-2	0,6	0	0	0	0	0	0	0	0	0	
LO1-B-1	1	0	0	0	0	0	0	0	0	0	
LO1-B-2	0,5	0	0	0	0	0	0	0	0	0	
LO1-C-1	0,4	0	0	0	0	0	0	0	0	0	
LO1-D-1	0,9	0	0	0	0	0	0	0	0	0	
LO1-D-2	0,4	0	0	0	0	0	0	0	0	0	
LO1-D-3	0,1	0	0	0	0	0	0	0	0	0	

UoL 2											ECVET POINTS per UOL
LO2-A-B-1	0	1	0	0	0	0	0	0	0	0	8
LO2-A-B-2	0	1,2	0	0	0	0	0	0	0	0	
LO2-A-B-3	0	1,2	0	0	0	0	0	0	0	0	
LO2-C-D-0	0	0,5	0	0	0	0	0	0	0	0	
LO2-C-D-1	0	1,6	0	0	0	0	0	0	0	0	
LO2-C-D-2	0	0,6	0	0	0	0	0	0	0	0	
LO2-C-D-3	0	0	1	0	0	0	0	0	0	0	
LO2-C-D-4	0	0	0,8	0	0	0	0	0	0	0	
LO-E-1	0	0	0,1	0	0	0	0	0	0	0	

UoL 3											ECVET POINTS per UOL
LO3-A-1	0	0	0	1	0	0	0	0	0	0	8
LO3-A-2	0	0	0	1	0	0	0	0	0	0	
LO3-B-1	0	0	0	2,2	0	0	0	0	0	0	
LO3-B-2	0	0	0	0,8	0	0	0	0	0	0	
LO3-B-3	0	0	0	1,6	0	0	0	0	0	0	
LO3-D-1	0	0	0	0,8	0	0	0	0	0	0	
LO3-D-2	0	0	0	0,2	0	0	0	0	0	0	
LO3-D-3	0	0	0	0,4	0	0	0	0	0	0	

UoL 4											ECVET POINTS per UOL
LO4-A-1	0	0	0	0	0,6	0	0	0	0	0	3,5
LO4-A-2	0	0	0	0	0,2	0	0	0	0	0	
LO4-A-3	0	0	0	0	0,5	0	0	0	0	0	
LO4-B-1	0	0	0	0	0,2	0	0	0	0	0	
LO4-B-2	0	0	0	0	0	0	0	0	0	0	
LO4-B-3	0	0	0	0	0	0	0	0	0	0	
LO4-C-1	0	0	0	0	0,4	0	0	0	0	0	
LO4-C-2	0	0	0	0	0,5	0	0	0	0	0	
LO4-C-3	0	0	0	0	0,2	0	0	0	0	0	
LO4-D-1	0	0	0	0	0,4	0	0	0	0	0	
LO4-D-2	0	0	0	0	0,2	0	0	0	0	0	
LO4-D-3	0	0	0	0	0,3	0	0	0	0	0	

Figure 17: ECVET Overview 1 - Campania

UoL 5											ECVET POINTS per UOL
LO5-A-B-1	0	0	0	0	0	0,6	0	0	0	0	2
LO5-A-B-2	0	0	0	0	0	0,6	0	0	0	0	
LO5-A-B-3	0	0	0	0	0	0,2	0	0	0	0	
LO5-A-B-4	0	0	0	0	0	0,4	0	0	0	0	
LO5-C-1	0	0	0	0	0	0,2	0	0	0	0	
UoL 6											ECVET POINTS per UOL
LO6-A-B-1	0	0	0	0	0	0	1,4	0	0	0	9,6
LO6-A-B-2	0	0	0	0	0	0	2,2	0	0	0	
LO6-A-B-3	0	0	0	0	0	0	1,2	0	0	0	
LO6-A-B-4	0	0	0	0	0	0	0,4	0	0	0	
LO6-A-B-5	0	0	0	0	0	0	0,2	0	0	0	
LO6-C-1	0	0	0	0	0	0	1	0	0	0	
LO6-C-2	0	0	0	0	0	0	0,5	0	0	0	
LO6-C-3	0	0	0	0	0	0	0,5	0	0	0	
LO6-D-1	0	0	0	0	0	0	1	0	0	0	
LO6-D-2	0	0	0	0	0	0	0,6	0	0	0	
LO6-D-3	0	0	0	0	0	0	0,6	0	0	0	
UoL 7											ECVET POINTS per UOL
LO7-A-1	0	0	0	0	0	0	0	0,5	0	0	4,4
LO7-A-2	0	0	0	0	0	0	0	0	0	0	
LO7-B-1	0	0	0	0	0	0	0	0,1	0	0	
LO7-B-2	0	0	0	0	0	0	0	0,1	0	0	
LO7-C-1	0	0	0	0	0	0	0	0,5	0	0	
LO7-C-2	0	0	0	0	0	0	0	0,2	0	0	
LO7-C-3	0	0	0	0	0	0	0	0	0,4	0	
LO7-C-4	0	0	0	0	0	0	0	0	0,4	0	
LO7-C-5	0	0	0	0	0	0	0	0	0,3	0	
LO7-D-1	0	0	0	0	0	0	0	0	0,2	0	
LO7-D-2	0	0	0	0	0	0	0	0	0,2	0	
LO7-D-3	0	0	0	0	0	0	0	0	0	0	
LO7-E-1	0	0	0	0	0	0	0	0	0,5	0	
LO7-E-2	0	0	0	0	0	0	0	0	0,2	0	
LO7-E-3	0	0	0	0	0	0	0	0	0,3	0	
LO7-E-4	0	0	0	0	0	0	0	0	0,5	0	

Figure 18: ECVET Overview 2 - Campania

PLAN OVERVIEW

M1	MANAGE SUPPLIERS AND BUY IN SUSTAINABLE FOOD INGREDIENTS
LO1-A-1	Identify the costs of required raw and semi-finished food products, kitchen equipment and consumable items, at the light of quality and sustainability and make and progressively update an inventory of all potential, local, food products, estimating their periodical cost
LO1-A-2	Identify international and national quality brands, also exploiting ICTs and dedicated e-data resources and taking into account high quality and parameters of sustainability, and take these brands into account managing suppliers
LO1-B-1	Define quality criteria of suppliers (including agri-fish-food chain) in order to identify, compare, monitor and evaluate regularly the best high-quality food suppliers
LO1-B-2	Plan and manage the supply process related to the specific health or social context
LO1-C-1	Identify and use local and seasonal ingredients in an appropriate way, identify local food suppliers and establish a network with them in order to guarantee constant food supply, also exploiting ICTs and dedicated e-data resources, being aware of the regional food supply chain and of how seasonal products are delivered
LO1-D-1	Promote full use of ingredients, raw materials and leftovers according to Hazard Analysis Critical Control Point-Concept (HACCP) and local law
LO1-D-2	Introduce measures for the prevention, separation and proper disposal of waste in the kitchen and ensure compliance with these measures by all members of the kitchen team
LO1-D-3	Create a food waste assessment plan, use it regularly, and share the results with all the staff

M2	SCREEN ASSESS MONITOR ON CLIENT LEVEL
LO2-A-B-1	Understand the impact of nutrition on development of diseases and human metabolism in a life-course approach and vice versa
LO2-A-B-2	taste/smell and of possible clients' food intake needs with respect to taste/smell deterioration, and detect these needs in collaboration with health professionals
LO2-A-B-3	Be aware of the naub swallowing problems which raise the need for adapted food and be able to tackle these problems and conditions in daily work in collaboration with health professionals
LO2-C-D-0	Know and understand the concepts of 'Primary Food Care', 'Gastrology' and 'Gastro-engineering' in healthcare and their role to promote active and healthy ageing, is aware of the main characteristics of the CGE professional profile, of what a "gastrological intervention" implies and of the main "gastrological tools" a CGE can rely on
LO2-C-D-1	Identify and select test protocols on taste disturbances and use them to detect and classify taste deterioration and to monitor it
LO2-C-D-2	Create solutions for the results of assessment from a CGE perspective and within the context of a comprehensive and holistic food care approach

M3	THE PROPER ICT TOOLS FOR ASSESSMENT
LO2-C-D-3	Know the main ICT tools for screening and assessing clients' individual food preferences and individual food intake needs and wishes, be able to select the proper ones and be able to use them, complying with data privacy and confidentiality guidelines and in collaboration with health professionals
LO2-C-D-4	Know the main ICT tools for recording and monitoring assessment results, as well as interventions, be able to select the proper ones and be able to use them, complying with legal ICT structure, addressing all data privacy and applicable confidentiality guidelines
LO-E-1	Know the main techniques and tools to detect clients' meal satisfaction and be able to apply this feedback in daily practice, in collaboration with health professionals

M4	CREATE RECIPES FOR A GENERAL POPULATION AND FOR PEOPLE WITH SPECIFIC NEEDS, COMPLYING WITH RECOMMENDATIONS OF HEALTH PROFESSIONALS
LO3-A-1	Understand cultural, religious or other trending food choices, recognize their impact on meals and cooking and adapt dishes considering them
LO3-A-2	Follow food trends, try out new meals/recipes and evaluate the trial phase in terms of its feasibility in the business/service, also in collaboration with actors external to the kitchen/institution
LO3-B-1	Collaborate to create standardized menu plans, grounded on disease adapted meals, starting from clients' needs assessment and in collaboration with health professionals
LO3-B-2	Adjust baseline menus to satisfy individual preference and needs
LO3-B-3	Know the effects of cooking on ingredients/raw materials and select the proper methods, maximizing the freshness and quality of the ingredients/raw materials
LO3-D-1	Know the basics of chemistry of food and combine food items in order to both respect food quality and obtain appetizing menus adapted to care settings
LO3-D-2	Schedule meals supply according to clients' needs and living environment, also taking into account the main accessibility issues for older adults and disabled people which could occur in the different care settings
LO3-D-3	Create menus including beverage recommendations for the planned menu sequences
M5	MANAGE THE KITCHEN AND COORDINATE PERSONNEL
LO4-A-1	Create budgets for each meal, according to food seasonal price, non-food supplies, and expected equipment durability and lifetime
LO4-A-2	Calculate and manage the kitchen budget of food, utilities and personnel
LO4-A-3	Make budget plans, negotiate them with superiors and assure they are followed by the kitchen personnel
LO4-B-1	Identify control parameters, evaluate the quality of the kitchen team's performance, conduct employee appraisals and provide feedback to superiors
LO4-C-1	Plan daily work optimizing workflow, draw up the work schedule and shifts for the kitchen team (balancing team capability) and ensure through constant monitoring that is followed by the staff
LO4-C-2	Analyse and optimize the processes in the kitchen organization, ensuring the smooth flow of food from preparation to service through communication between the kitchen and the service department
LO4-C-3	Know and apply the proper leadership strategies, being able to plan work, organize tasks, and delegate to others and to develop decision-making strategies
LO4-D-1	Define equipment maintenance schedules and monitor, assess, and record the adherence to it
LO4-D-2	Ensure the adequate and efficient use and the proper cleaning of kitchen machines, equipment and utensils performing quality controls in compliance with quality national standards
LO4-D-3	Align workstations in the kitchen with the requirements of the individual kitchen stations
M6	ENSURE QUALITY OF FOOD AND FOLLOW SAFETY REGULATIONS
LO5-A-B-1	Comply and monitor compliance with HACCP and with national and local hygiene quality standards in the preparation, storing, delivering and discarding food and beverages
LO5-A-B-2	Understand the risk of common foodborne diseases and the main causes of food deterioration; apply this knowledge to food safety
LO5-A-B-3	Create instructions for staff about the measures to implement in order to comply with safety, hygiene and quality standards and laws and properly document implemented measures
LO5-A-B-4	Promote health and safety within the working environment performing workplace evaluations for all stations in the kitchen and recording their results
LO5-C-1	Plan and execute food tasting for healthcare professionals to test and review menus and new dishes

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M7	USE AND ADAPT COOKING TECHNIQUES TO THE SPECIFIC CARE SETTING AND CLIENT
LO6-A-B-1	Know the main cooking techniques and select the appropriate ones for the different healthcare contexts in order to maintain the nutritional properties and maximize the nutritional value of the ingredients
LO6-A-B-2	Use or supervise the use of established, innovative and complex preparation methods, also combining and applying various cooking methods simultaneously and developing creative solutions
LO6-A-B-3	Prepare cold and hot dishes (or supervise their preparation) according to clients' requirements and the meal plan approved by healthcare professionals, taking into account food intolerances and allergies
LO6-A-B-4	Prepare beverage recommendations for all dishes and communicate them to the service team
LO6-A-B-5	Prepare the decoration and serving plan in collaboration with the service team
LO6-C-1	Design menus and a la carte dishes and apply proper food preparation and cooking techniques, also developing innovative solutions, for different food forms and diets and respect cultures and religions (e.g. vegetarians, vegans, gluten-free, allergy sufferers, people with food intolerances, diabetes, hypertension, etc.)
LO6-C-2	Recognize the model diets (vegan, vegetarian, zone diet, Mediterranean diet...) and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients
LO6-C-3	Recognize the food prescriptions and restraints of the main religions and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients
LO6-D-1	Define consistency and texture of food in a creative, balanced and flavourful way
LO6-D-2	Know the chemical composition of fortified food and correctly perform fortification in meals
LO6-D-3	Apply creative and innovative kitchen techniques to adapt recipes for people with taste changes or consistency adjustments (including hot, cold, crisp, soft, moist, dry)
M8	COMMUNICATE, INTERACT AND COLLABORATE WITH CLIENTS AND INTERPROFESSIONAL TEAM
LO7-A-1	Define a customer satisfaction protocol and place customer service at the hearth of decision-making and activities
LO7-B-1	Understand the impact of food and nutrition on social determinants of health and vice versa and leverage attractive taste to promote healthy recipes and healthier nutritional habits, also providing advice and guidance to other professionals on culinary matters to educate clients
LO7-B-2	Prepare and apply client counselling, in collaboration with healthcare professionals, to promote healthy choices and behaviours
LO7-C-1	Be aware of the main roles and responsibilities of health/social care professionals in food care and work coherently, acting as a member of an interprofessional team, maximizing the added value of each professional, and identifying possibilities for interdisciplinary development and cooperation
LO7-C-2	Know the characteristics of successful teams and the main strategies for overcoming barriers to effective teamwork and contextualize them in daily work

M9	PROBLEM-SOLVING TECHNIQUES AND DIGITAL COMPETENCE IN DAILY WORK
LO7-C-3	Know, select and apply the proper communication and mutual support techniques for inter-professional teams and change and observe behaviours
LO7-C-4	Apply creative thinking techniques developing creative solutions to abstract problems, propose solutions and discuss with goal-orientated attitude, reaching shared decisions, applying the main problem-solving techniques
LO7-C-5	Exercise management and supervision in contexts of work, reviewing and developing performance of self and others
LO7-D-1	Identifies opportunities to create value, develop creative and purposeful ideas, develop a vision to turn ideas into action, identify suitable ways for valuing ideas and assess consequences of them
LO7-D-2	Identify individual and group strenghts and weaknesses, mobilizes resources needed to turn ideas into action, be aware of the idea cost and financial implications and engage relevant stakeholders for the action
LO7-E-1	Browse, search, filter and manage data, information and digital content, evaluating them according to the specific context of application
LO7-E-2	Interact, share and collaborate through variety of digital technologies and select appropriate digital communication means for a given context
LO7-E-3	Know the main privacy issues and protect his/her own end users' personal data and privacy in digital environments
LO7-E-4	Know the main current digital tools dedicated to food (composition, ingredients, combination, properties, treatments, regional resources...)

Figure 19: Plan Overview – Campania

14.2 Campania's Course Syllabus (Part A)

14.2.1 PART A - GENERAL INFORMATION about the COURSE

COURSE TITLE	"Chef esperto di cucina salutistica " <i>English translation: Specialization course in Chef Gastro-Engineering</i>
QUALIFICATION CONFERRED	CHEF ESPERTO DI CUCINA SALUTISTICA
ECVET POINTS ASSIGNED	40
TOTAL STUDENT WORKLOAD DUTY	1000 hours
LEVEL OF QUALIFICATION (EQF)	EQF5
ACCESS REQUIREMENTS	EQF4
NAME AND STATUS OF AWARDING INSTITUTION	ITS BACT
LANGUAGE(S) OF INSTRUCTION/EXAMINATION	Italian
MODE OF STUDY	Blended learning

COURSE COORDINATOR	Prof. Maria Pia Ponticelli
MAIN ADDRESS OF THE INSTITUTION	Segreteria.presidenza@fondazioneitsbact.it
MAIN CONTACTS	Valentina Compiani
MAIN REFERENCE WEB PLATFORMS	www.itsbact.edu.it

14.2.2 SHORT COURSE DESCRIPTION

The international scientific community identified nutrition as the key to healthy ageing. In particular, the importance of preventing and treating pathologies typically linked to nutrition (cardiovascular diseases, endocrinological diseases, diabetes, atherosclerosis, Alzheimer's, ...) has been highlighted, underlining the need for a competent and public health workforce, which is currently missing.

The Nectar consortium identified a mismatch between the competences currently owned by chefs who work for hospital canteens and residences for the elderly, and those actually required by health institutions. So, the CGE professional profile has been studied and developed during the project.

The Italian pilot courses, i.e. the Ligurian and Campania's ones, will last 1000 hours and will be included in the European system and in the regional Repertories of qualifications of the experimental territories. Moreover, they will both award an EQF level 5 and 40 ECVET points.

The “Chef Gastro Engineer” qualification was rendered into Italian as “*Chef esperto di cucina salutistica*”. The name of this qualification is the result of an informal agreement between Regione Campania and Regione Liguria, who are both NECTAR project partners. “*Chef esperto di cucina salutistica*” will be a Regional Qualification, set at EQF5 level. Both regions are now starting the pathway for the institutional recognition of the qualification in the Repertories of Professionals Qualifications of Liguria and Campania. It will also be integrated in the National Framework of Regional Qualifications (Quadro Nazionale di Riferimento delle Qualificazioni Regionali - QNQR).

The qualification will be aimed at the dietary needs of a priority target (the elderly).

Thanks to a higher autonomy in his/her communication and relationship with the world of science (inter-professionalism), as well as with suppliers of quality raw materials (sustainable procurement), the Chef Gastro Engineer (CGE) will have additional skills to those mentioned above. In particular, these additional skills will concern the customization of recipes based on the pathologies or disabilities of the end user, always in close interaction with the chef (screening) and technical skills to use ICT tools for the remote personalization and monitoring of menus.

All this will be focused on the principles and rules of the Mediterranean diet, a lifestyle and diet that has been an intangible heritage of humanity since 2010. The Mediterranean diet was discovered by illustrious American researchers in Cilento, an area of the Campania region, because of the healthy longevity of its inhabitants. It then progressively spread throughout Italy and beyond, also thanks to a group of starred chefs from Campania, who were designated by UNESCO as ambassadors of the Mediterranean Diet in the world and will be involved as teachers in the Italian pilot editions of the CGE training course.

This last aspect highlights the predominantly work-based and laboratory character (tot. 60% of the total number of hours) of the training course, which develops, in a deductive way from the exercise of the practice, the theoretical and technical-scientific contents that constitute the added value of this chef. The main subject areas within which knowledge and skills of the professional figure are embedded are: food and nutrition science, food hygiene, commodities, gastronomic economics, ICT, gastronomy, physiology and pathology, health statistics, clinical psychology, communication science, interpersonal relationship management, dietetics, food chemistry, personnel management, microbiology, hygiene, food safety, work safety, food law, collective catering.



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14.2.3 WORKLOAD DISTRIBUTION

ACTIVITY	Hours of Teaching	Hours of Individual study	Total Students' Workload
Face-to-Face Class and webinars	255	58	313
Labs	302,5	0	302,5
Online learning (I-Moox and other local platforms)	0	45	45
Work-based learning	337,5	0	337,5
Final Examination	0	2	2
TOTAL	895	105	1000



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14.2.4 PART A - MODULES PLANS

MODULE 1

TITLE	MANAGE SUPPLIERS AND BUY IN SUSTAINABLE FOOD INGREDIENTS
ASSIGNED ECVET POINTS	4,4
STUDENTS WORKLOAD	
TIME SCHEDULE	112,5

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T1
LO1-A1	0,6		T1.1
Identify the costs of required raw and semi-finished food products, kitchen equipment and consumable items, at the light of quality and sustainability and make and progressively update an inventory of all potential, local, food products, estimating their periodical cost		QUALITY OF FOOD CHAINS	<i>T1.1a The sustainable process in the agri-food chain (Prof.)</i>
		FOOD SCIENCE	<i>T1.1b The parameters of sustainability and quality in the agri-food chain (Prof.)</i>
		COMMODITY STUDIES	<i>T1.1c The key features of an inventory of all potential local food products (Prof.)</i>
		ECONOMY	<i>T1.1d Criteria to estimate the seasonal cost of local food products (Prof.)</i>
		INFORMATION TECHNOLOGY	<i>T1.1e Data collection on local food products (Prof.)</i>
		ECONOMY	<i>T1.1f Identify costs of kitchen equipment and consumable items (Prof.)</i>
			<i>T1.1g Identification of costs of raw and semi-finished food products required (Prof.)</i>
LO1-A2	0,6		T1.2
Identify international and national quality brands, also exploiting ICTs and dedicated e-data resources and taking into account high quality and parameters of		ECONOMY	<i>T1.2a Quality marks</i>
			<i>T1.2b Quality tout court (ISO 9001: 2015, IFS, BRC, GLOBAL GAP)</i>
			<i>T1.2c Environmental certifications (ISO 14001: 2015, EMAS)</i>



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sustainability, and take these brands into account managing suppliers		COMMODITY STUDIES	T1.2d International and national quality brands
		ECONOMY	T1.2e Quality certifications for organic products according to European and third countries' legislation
			T1.2f Protocols of integrated agriculture and biodynamics
		ECONOMY	T1.2g Certifications of typical origin allowed in the EU (IGP; DOP; STG)
		INFORMATION TECHNOLOGY	T1.2h The main characteristics of a database about to the main producers and suppliers for an inventory of products of typical origin or with quality certifications, crossing it with sustainability parameters
T1.2i The principal TICs to update a database of suppliers			
LO1-B1	1		T1.3
Define quality criteria of suppliers (including agri-fish-food chain) in order to identify, compare, monitor and evaluate regularly the best high-quality food suppliers		COMMODITY STUDIES	T1.3a Sustainability assessment of food by FAO
			T1.3b Sustainability in food production and consumption
			T1.3c Quality criteria for products
		ECONOMY	T1.3d Suppliers' compliance with quality and sustainability criteria
		T1.3e Sustainability criteria for each pair of product/supplier	
GASTRONOMY	T1.3f Evaluation criteria for supplier product quality		
LO1-B-2	0,5		T1.4
Plan and manage the supply process related to the specific health or social context		HEALTHCARE ECONOMICS	T1.4aThe healthcare contexts
		GASTRONOMY	T1.4bThe management of supply process



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		GASTRONOMIC ECONOMICS	<i>T1.4c Suppliers and meal plan's needs in specific health or social context</i> <i>T1.4d Logistics system and energy consumption</i>
		COMMODITY STUDIES	<i>T1.4e Shelf life of the products and the methods of conservation</i>
		GASTRONOMY	<i>T1.4f The construction of short supply chains and the relationship with producers</i>
		FOOD HYGIENE	<i>T1.4g HACCP system and storage phase</i>
LO1-C-1	<i>0,4</i>		T1.5
Identify and use local and seasonal ingredients in an appropriate way, identify local food suppliers and establish a network with them in order to guarantee constant food supply, also exploiting ICTs and dedicated e-data resources, being aware of the regional food supply chain and of how seasonal products are delivered		ECONOMY	<i>T1.5a The Seasonality of local food</i> <i>T1.5b Food seasonal prices</i> <i>T1.5c The best practices for seasonal food delivery</i> <i>T1.5d The regional food supply chain</i> <i>T1.5e The commercial network with suppliers</i>
		INFORMATION TECHNOLOGY	<i>T1.5f ICT channels for screening and contacting suppliers.</i>
LO1-D-1	<i>0,9</i>		T1.6
<i>Promote full use of ingredients, raw materials and leftovers according to Hazard Analysis Critical Control Point-Concept (HACCP) and local law</i>		HYGIENE	<i>T1.6a Hygienic management of leftovers during the production process</i> <i>T1.6b The mishandling of products and leftovers and foodborne illnesses</i>
		GASTRONOMY	<i>T1.6c The HACCP steps related to food preparation and the use of leftovers</i> <i>T1.6d Leftovers cooking techniques</i> <i>T1.6e Recipes that optimize the use of ingredients by minimizing residues and production waste</i>



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LO1-D-2	<i>0,4</i>		T1.7
Introduce measures for the prevention, separation and proper disposal of waste in the kitchen and ensure compliance with these measures by all members of the kitchen team		GASTRONOMY (wbl)	<i>T1.7a Management of waste and sustainability related issues</i>
LO1-D-3	<i>0,1</i>		T1.8
Create a food waste assessment plan, use it regularly, and share the results with all the staff		GASTRONOMY (wbl)	<i>T1.8a Management and waste assessment plan</i>

MODULE 2

TITLE	SCREEN ASSESS MONITOR ON CLIENT LEVEL
ASSIGNED ECVET POINTS	6,1
STUDENTS WORKLOAD	
TIME SCHEDULE	152,5

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T2
LO2-A-B1	<i>1</i>		T2.1
Understand the impact of nutrition on development of diseases and human metabolism in a life-course approach and vice versa		DISEASES OF METABOLISM AND DIET	<i>T2.1a Epidemiological research on the human metabolism</i> <i>T2.1b Needs assessments</i> <i>T2.1c Frequency of diseases affecting human metabolism</i>



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			<i>T2.1d Complex diseases</i>
		GENERAL PATHOLOGY	<i>T2.1e Diseases of the digestive system and human metabolism changes in taste, smell and absorption of food</i> <i>T2.1f Medical treatments and impact of food intake</i>
		COLLECTIVE NUTRITION	<i>T2.1g Basic nutritional needs of older citizens and patients</i>
LO2-A-B2	1,2		T2.2
Know basics in physiology of taste/smell, be aware of how different conditions affect taste/smell and of possible clients' food intake needs with respect to taste/smell deterioration, and detect these needs in collaboration with health professionals		ANATOMY	<i>T2.2a Anatomy of the human gastrointestinal system</i>
		PHYSIOLOGY, PATHOLOGY AND GENETICS OF TASTE	<i>T2.2b Physiology of taste and smell</i> <i>T2.2c Different diseases affecting taste and smell</i> <i>T2.2d Consequences of diseases affecting taste and smell</i> <i>T2.2e Nutritional needs of people with diseases affecting the smell and taste</i> <i>T2.2f Nutritional needs of people with diseases affecting the smell and taste</i>
LO2-A-B3	1,2		T2.3
Be aware of the naub swallowing problems which raise the need for adapted food and be able to tackle these problems and conditions in daily work in collaboration with health professionals		PATOLOGY	<i>T2.3a Pathology of most common swallowing disorders</i> <i>T2.3b The main swallowing problems</i> <i>T2.3c Medical conditions that can affect the need for food texture modification</i>



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LO2-C-D0	0,5		T2.4
Know and understand the concepts of 'Primary Food Care', 'Gastrology' and 'Gastro-engineering' in healthcare and their role to promote active and healthy ageing, is aware of the main characteristics of the CGE professional profile, of what a "gastrological intervention" implies and of the main "gastrological tools" a CGE can rely on		Gastroenterology	TBD
LO2-C-D1	1,6		T2.5
Identify and select test protocols on taste disturbances and use them to detect and classify taste deterioration and to monitor it		EPIDEMIOLOGY OF EATING HABITS	<i>T2.5a The main test protocols on taste deterioration</i> <i>T2.5b Test protocols for selection the one for a client</i> <i>T2.5c The correct criteria for test protocols on taste deterioration</i> <i>T2.5d Identification of failure situations</i>
		HEALTH STATISTICS	<i>T2.5e Strategies of using critically selected test protocols on taste impairment</i>
LO2-C-D2	0,6		T2.6
Create solutions for the results of assessment from a CGE perspective and within the context of a comprehensive and holistic food care approach		NUTRITION AND COLLECTIVITY	<i>T2.6a The comprehensive nutritional care</i> <i>T2.6b Professions involved in comprehensive nutritional care and their function</i>
		HEALTH STATISTICS	<i>T2.6c Solutions for assessment results</i>



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MODULE 3

TITLE	THE PROPER ICT TOOLS FOR ASSESSMENT
ASSIGNED ECVET POINTS	1,9
STUDENTS WORKLOAD	
TIME SCHEDULE	47,5

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T3
LO2-C-D3	1		T3.1
Know the main ICT tools for screening and assessing clients' individual food preferences and individual food intake needs and wishes, be able to select the proper ones and be able to use them, complying with data privacy and confidentiality guidelines and in collaboration with health professionals		INFORMATION TECHNOLOGY	<p><i>T3.1a The most common ICT tools available regionally and their function for screening and assessing clients individual food preferences and individual needs and wishes</i></p> <p><i>T3.1b The most important ICT tools for screening and assessing clients' individual food preferences available at international level</i></p> <p><i>T3.1c The data privacy and confidentiality guidelines regarding the use of ICT tools for screening and assessing clients individual food preferences</i></p>
LO2-C-D4	0,8		T3.2
Know the main ICT tools for recording and monitoring		INFORMATION TECHNOLOGY	<i>T3.2a The common ICT tools of culinary interventions</i>



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assessment results, as well as interventions, be able to select the proper ones and be able to use them, complying with legal ICT structure, addressing all data privacy and applicable confidentiality guidelines		<i>T3.2b The ICT tools for recording and monitoring assessment results, as well as culinary interventions</i>
	STATISTICS	<i>T3.2c The assessment results of culinary interventions</i>
LO2-E1	<i>0,1</i>	
Know the main techniques and tools to detect clients' meal satisfaction and be able to apply this feedback in daily practice, in collaboration with health professionals	COMMUNICATION	<i>T3.3a The main tools and techniques tools for detection of clients' satisfaction and impressions</i>
	WORK PSYCHOLOGY	<i>T3.3b The cooperation with the client to enhance the care outcome and high satisfaction</i> <i>T3.3c The different counselling techniques to ensure effectiveness and appropriateness</i>

MODULE 4

TITLE	CREATE RECIPES FOR A GENERAL POPULATION AND FOR PEOPLE WITH SPECIFIC NEEDS, COMPLYING WITH RECOMMENDATIONS OF HEALTH PROFESSIONALS
ASSIGNED ECVET POINTS	8
STUDENTS WORKLOAD	
TIME SCHEDULE	200

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T4
LO3-A1	<i>1</i>		<i>T4.1</i>



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Understand cultural, religious or other trending food choices, recognize their impact on meals and cooking and adapt dishes considering them		FOOD TRADITION AND RELIGIOUS CULTURE	<i>T4.1a Cultural anthropology and relationship of food and beverages</i> <i>T4.1b Food prescriptions and prohibitions in the various cultures and religions</i>
		DIETOLOGY IN PHYSIOLOGICAL AND PATHOLOGICAL CONDITIONS	<i>T4.1c Food reference models (vegan and vegetarian diets)</i> <i>T4.1d The nutritional lacks connected with the exclusion of specific food item</i>
		GASTRONOMY	<i>T4.1e The physical cooking methods and nutritional impact</i> <i>T4.1f Methods to adapt dishes for specific target groups</i>
LO3-A-2	1		T4.2
Follow food trends, try out new mwals/recipes and evaluate the trial phase in terms of its feasibility in the business/service, also in collaboration with actors external to the kitchen/institution		ECONOMY	<i>T4.2a The food trends</i> <i>T4.2b The scientific evaluation of new food trends</i> <i>T4.2c Standardization and validation tools to evaluate feasibility of new meals/recipes in collaboration with multidisciplinary team and stakeholders</i> <i>T4.2d The external actors to try out new meals/recipes as well as gastronomic services</i> <i>T4.2e The analysis cost/price of food and beverages product with budgetary analysis techniques</i> <i>T4.2f Key parameters to be tested and describe evaluation methods for recipe/meal trials in terms of feasibility</i>
		GASTRONOMY	<i>T4.2g Different gastronomic services and criteria for needs assessment about the services</i>
LO3-B1	2,2		T4.3



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Collaborate to create standardized menu plans, grounded on disease adapted meals, starting from clients' needs assessment and in collaboration with health professionals		DIETOLOGY IN PHYSIOLOGICAL AND PATHOLOGICAL CONDITIONS	<p><i>T4.3a The standardized and evidence-based diets (eg. Nutritional principles and Guidelines for a healthy diet and LARN)</i></p> <p><i>T4.3b Key nutritional parameters and prescription for diets in pathological conditions</i></p> <p><i>T4.3c Nutritional needs and composition of balanced menus</i></p>
		FOOD CHEMISTRY	<i>T4.3d Principles of food chemistry to elaborate tasteful dishes adapting nutritional parameter for standardized and evidence-based diet plan recommended by health professionals</i>
		WORK PSYCHOLOGY	<i>T4.3e The professional boundaries with other health professionals</i>
LO3-B-2	0,8		T4.4
Adjust baseline menus to satisfy individual preference and needs		PHYSIOLOGY AND PATHOLOGY	<i>T4.4a Physiological and pathological needs of individuals</i>
		GASTRONOMY	<p><i>T4.4b Baseline menu and balanced menus (e.g. balanced ratio of macro- and micronutrients, food frequencies, economic and ecological sustainability, portion size, etc.)</i></p> <p><i>T4.4c The methods to adjust baseline menu to individual preferences</i></p>
		CHEMISTRY	<i>T4.4d Principles of food chemistry to elaborate tasteful dishes adapting nutritional parameter to individual needs and preferences according to physiological and pathological needs</i>
LO3-B3	1,6		T4.5
Know the effects of cooking on ingredients/raw materials and select the proper methods, maximizing the freshness and		GASTRONOMY	<p><i>T4.5a Modifications of the nutritional principles through cooking and the effect on ingredients</i></p> <p><i>T4.5b The range of wet, dry, and non-thermal cooking methods and their appropriate uses for various ingredients and menus</i></p> <p><i>T4.5c Phases, times, tools and methods of processing, cooking and preserving products</i></p>



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quality of the ingredients/raw materials			<p><i>T4.5d Techniques for the preparation and service of products according to pathological needs, considering food preference, in collaboration with health professionals</i></p> <p><i>T4.5e The effects of cooking on ingredients and outline appropriate cooking methods to preserve nutritional properties and taste and to maximizing quality and freshness of ingredient</i></p>
LO3-D1	0,8		T4.6
Know the basics of chemistry of food and combine food items in order to both respect food quality and obtain appetizing menus adapted to care settings		FOOD CHEMISTRY	<p><i>T46.a Chemistry of food and how their components affect each other</i></p> <p><i>T46.b Chemical interaction and synergies among ingredients to enhance proprieties of ingredients for each tasteful preparation and equilibrate menus</i></p> <p><i>T46.c Chemical interaction and synergies among ingredients to reach the maximum nutritional value for each tasteful preparation and the equilibrate menus</i></p> <p><i>T46.d Chemistry and nutritional value of the different type of beverages</i></p>
		GASTRONOMY	<p><i>T46.e Nutritional balance in meals/recipes</i></p> <p><i>T46.f Appetizing menus according to national catering standard adapted to care setting</i></p>
LO3-D2	0,2		T4.7
Schedule meals supply according to clients' needs and living environment, also taking into account the main accessibility issues for older adults and disabled people which could occur in the different care settings		WORK PSYCHOLOGY	<p><i>T4.7a Different typology of living environment of care settings</i></p> <p><i>T4.7b The main accessibility issues for older adults and disabled people which could occur in the different care settings</i></p>
		GASTRONOMY	<i>T4.7c The different strategies for meals supply for older and disable people</i>
		FOOD AND HUMAN NUTRITION	<i>T4.7d The nutritional parameters for diets for older adult and in the different disabled conditions</i>
LO3-D3	0,4		T4.8
Create menus including beverage recommendations for the planned menu sequences		GASTRONOMY (WBL)	<p><i>T4.8a Proper combinations of beverages with menus</i></p> <p><i>T4.8b The rules for food and beverage pairing to create a tasteful menu</i></p>



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MODULE 5

TITLE	MANAGE THE KITCHEN AND COORDINATE PERSONNEL
ASSIGNED ECVET POINTS	3,5
STUDENTS WORKLOAD	
TIME SCHEDULE	87,5

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T5
LO4-A-1	0,6		T5.1
Create budgets for each meal, according to food seasonal price, non-food supplies, and expected equipment durability and lifetime		ECONOMY	T5.1a The basic principles of accounting for budget management T5.1b The budget calculation formulas, to be used applying seasonal prices
		GASTRONOMY	T5.1c Identification required non-food supplies T5.1d The durability and lifetime of kitchen equipment
LO4-A2	0,2		T5.2
Calculate and manage the kitchen budget of food, utilities and personnel		INFORMATION TECHNOLOGY	T5.2a software and spreadsheets
		ECONOMY	T5.2b Utilities and personnel in the kitchen T5.2c The workload (in terms of personnel time cost) associated to each recipe and menu



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LO4-A-3	0,5		T5.3
Make budget plans, negotiate them with superiors and assure they are followed by the kitchen personnel		ECONOMY	<i>T5.3a Budget plans for specific time periods</i>
LO4-B1	0,2		T5.4
<i>Identify control parameters, evaluate the quality of the kitchen team's performance, conduct employee appraisals and provide feedback to superiors</i>		HUMAN RESOURCE MANAGEMENT	<i>T5.4a The kitchen team T5.4b Parameters to evaluate quality of kitchen team's performance</i>
LO4-C1	0,4		T5.6
Plan daily work optimizing workflow, draw up the work schedule and shifts for the kitchen team (balancing team capability) and ensure through constant monitoring that is followed by the staff		WORK PSYCHOLOGY	<i>T5.6a The main elements of an effective work schedule T5.6b The main criteria to balance team capability in order to plan effective shifts T5.6c The different capabilities and needs of kitchen team when planning work schedule and shifts T5.6d The activities that the kitchen staff should carry out in each shift Evaluation staff capacities</i>
LO4-C-2	0,5		T5.7
Analyze and optimize the processes in the kitchen organization, ensuring the smooth flow of food from preparation to service through communication between the kitchen and the service department		GASTRONOMY (WBL)	<i>T5.7a The processes in the kitchen organization from preparing to food to service</i>
		COMMUNICATION IN WINE-GASTRONOMY	<i>T5.7b The communication between kitchen and service department</i>



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LO4-C-3	0,2		T5.8
Know and apply the proper leadership strategies, being able to plan work, organize tasks, and delegate to others and to develop decision-making strategies		HUMAN RESOUCE MANAGEMENT (WBL)	<i>T5.8a The main leadership and staff management in the working contexts in the primary food care sector</i>
LO4-D1	0,4		T5.9
Define equipment maintenance schedules and monitor, assess, and record the adherence to it		GASTRONOMY	<i>T5.9a The problems of kitchen equipment</i> <i>T5.9b The maintenance routines for each piece of equipment</i> <i>T5.9c The schedules for the and frequency of maintenance operations</i>
LO4-D2	0,2		T5.10
Ensure the adequate and efficient use and the proper cleaning of kitchen machines, equioment and utensils performing quality controls in compliance with quality national standards		HYGIENE	<i>T5.10 a The quality standards concerning kitchen equipment and utensil's hygiene</i> <i>T5.10b The proper cleaning tools for kitchen machines, equipment and utensils</i>
LO4-D3	0,3		T5.11
Align workstations in the kitchen with the requirements of the individual kitchen stations		GASTRONOMY (WBL)	T5.11a Workstations in the kitchen with the requirements of the individual kitchen stations



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MODULE 6

TITLE	ENSURE QUALITY OF FOOD AND FOLLOW SAFETY REGULATIONS
ASSIGNED ECVET POINTS	2
STUDENTS WORKLOAD	
TIME SCHEDULE	50

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T6
LO5-A-B-1	0,6		T6.1
Comply and monitor compliance with HACCP and with national and local hygiene quality standards in the preparation, storing, delivering and discarding food and beverages		MICROBIOLOGY	T6.1a Cycle of bacteria transmissions
		FOOD HYGIENE	<p>T6.1b Describe the parameters of the HACCP critical control points</p> <p>T6.1c GMPs (Good manufacturing process) in relation to the possible pollution identified in the critical points of the HACCP system</p> <p>T6.1d National and local hygiene quality standards</p> <p>T6.1e HACCP regulations and other legal dispositions for meal preparation, food storing and waste management</p> <p>T6.1f HACCP in the different phases identified in the production</p> <p>T6.1g HACCP in eventual transport to the product's destination</p> <p>T6.1h Updates on rules and regulations</p> <p>T6.1i Risks associated with non-compliance with rules and regulations</p> <p>T6.1l Proper methods for the continuous monitoring of compliance with rules or regulation, by all staff</p>
LO5-A-B2	0,6		T6.2



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Understand the risk of common foodborne diseases and the main causes of food deterioration; apply this knowledge to food safety		MICROBIOLOGY HYGIENE	<i>T6.2a The main causes of food deterioration (bacteria, viruses, toxins, contaminants)</i> <i>T6.2b The main foodborne diseases</i>
		FOOD HYGIENE	<i>T6.2c Parameters to recognize when a food is altered or deteriorated.</i> <i>T6.2d The possible failure situations</i> <i>T6.2e The procedures to minimize the risk of foodborne diseases, in all stages of meal preparation</i>
LO5-A-B-3	0,2		T6.3
Create instructions for staff about the measures to implement in order to comply with safety, hygiene and quality standards and laws and properly document implemented measures		GASTRONOMY	<i>T6.3a The importance of proper communication with kitchen staff</i> <i>T6.3b Tools to communicate and monitor procedures</i> <i>T6.3c Measures to comply with rules and standards</i>
LO5-A-B4	0,4		T6.4
Promote health and safety within the working environment performing workplace evaluations for all stations in the kitchen and recording their results		SICUREZZA ALIMENTARE GASTRONOMY	<i>T6.4a Safety procedures in a kitchen environment</i> <i>T6.4b The procedure to perform workplace evaluations for all stations in the kitchen</i> <i>T6.4c The procedure to record workplace evaluations</i> <i>T6.4d Proper tools and methods to monitor workflow and safety in a kitchen environment</i>
LO5-C1	0,2		T6.5
Plan and execute food tasting for healthcare professionals to test and review menus and new dishes		GASTRONOMY FOOD SCIENCE	<i>T6.5a The procedure to plan and conduct food tastings</i> <i>T6.5b The analyses of collected data from food tastings to improve meals and menus</i> <i>T6.5c The changes to meals and menus, based on a critical assessment of the opinions of health professionals</i>



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MODULE 7

TITLE	USE AND ADAPT COOKING TECHNIQUES TO THE SPECIFIC CARE SETTING AND CLIENT
ASSIGNED ECVET POINTS	9,6
STUDENTS WORKLOAD	
TIME SCHEDULE	240

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T7
LO6-A-B1	1,4		T7.1
Know the main cooking techniques and select the appropriate ones for the different healthcare contexts in order to maintain the nutritional properties and maximize the nutritional value of the ingredients		GASTRONOMY FOOD TECHNOLOGY	T7.1a Select the most appropriate cooking technique to reach maximum nutritional value of ingredients T7.1b Adapt the appropriate cooking techniques to the different food ranges T7.1c Adapt the appropriate cooking techniques to the different healthcare context
LO6-A-B2	2,2		T7.2
Use or supervise the use of established, innovative and complex preparation methods, also combining and applying various cooking methods simultaneously and developing creative solutions		GASTONOMY FOOD TECHNOLOGY	T7.2a The innovative and complex preparation techniques T7.2b The most appropriate combination of cooking methods to reach the maximum nutritional and tasteful potential of each ingredient in innovative and complex preparation T7.2c Define criteria to combine various cooking methods simultaneously
LO6-A-B3	1,2		T7.3
Prepare cold and hot dishes (or supervise their		ALLERGIES AND INTOLERANCES TO ADVERSE REACTIONS OF FOOD	T7.3a Food intolerance e allergies T7.3b The main EU rules to operate with allergic / intolerant clients (e.g. Reg. UE n.1169/2011),

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preparation) according to clients' requirements and the meal plan approved by healthcare professionals, taking into account food intolerances and allergies		FOOD LAW	<i>T7.3c The main recognized allergens</i>
		ALLERGIES AND INTOLERANCES TO ADVERSE REACTIONS OF FOOD	<i>T7.3d The parameters to elaborate a database about requirements and types of allergies and intolerances</i>
		GASTRONOMY	<i>T7.3e Alternative ingredients in the most common preparations for the allergic and intolerant population</i> <i>T7.3f The methods to define meal plan according to the health care indication and client requirements</i>
LO6-A-B4	<i>0,4</i>		T7.4
Prepare beverage recommendations for all dishes and communicate them to the service team		WINE-GASTRONOMY	<i>T7.4a Different beverages for different dishes</i> <i>T7.4b The beverages that are healthy and suitable for dishes</i>
LO6-A-B5	<i>0,2</i>		T7.5
Prepare the decoration and serving plan in collaboration with the service team		GASTRONOMY WINE- GASTRONOMY	<i>T7.5a The importance of food presentation as part of the meal experience</i> <i>T7.5b The trends in food presentation</i> <i>T7.5c The styles of food service</i> <i>T7.5d Garnishes and accompaniments for traditional dishes</i> <i>T7.5e The different decorations for dishes</i> <i>T7.5f The main roles of each member of the service team</i> <i>T7.5g The different serving plans according to clients' needs</i>
LO6-C1	<i>1</i>		T7.6
Design menus and a la carte dishes and apply proper food preparation and cooking techniques, also developing innovative solutions, for different food forms and diets and respect cultures and religions (e.g. vegetarians, vegans, gluten-free, allergy ...		FOOD SCIENCE	<i>T7.6a Different types and styles of menu</i> <i>T7.6b The parameters to balance menu in terms of nutrition and taste</i> <i>T7.6c Food preparation and cooking techniques while respecting cultures and religions</i>
		DIETOLOGY	<i>T7.6d The description of different diets</i>
		FOOD CHEMISTRY	<i>T7.6f Principles of food chemistry to elaborate tasteful dishes in different pathological condition adapting nutritional parameter recommended by health professionals</i>
LO6-C2	<i>0,5</i>		T7.7
Recognize the model diets (vegan, vegetarian, zone diet, Mediterranean diet...) and be able to prepare dishes		DIETOLOGY	<i>T7.7a Different model diets (vegan, vegetarian, zone diet, Mediterranean diet...)</i> <i>T7.7b The evaluation and selection of ingredients for dishes that are suitable for model diets</i>



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according to them, also developing innovative solutions and creating new combinations of ingredients			<i>T7.7c The nutritional lacks connected with the exclusion of specific food items</i>
LO6-C3	0,5		T7.8
Recognize the food prescriptions and restraints of the main religions and be able to prepare dishes according to them, also developing innovative solutions and creating new combinations of ingredients		FOOD SCIENCE CULTURE AND RELIOUS TRADITION	<i>T7.8a The food prescriptions and restraints of main religions and cultures</i> <i>T7.8b The appropriate combination of ingredient permitted for each culture and religion</i>
		GASTRONOMY	<i>T7.8c The appropriate procedure for ingredient preparation permitted for each culture and religion</i> <i>T7.8d The local food for the preparation of dishes according to religious food prescription</i>
LO6-D1	1		T7.9
Define consistency and texture of food in a creative, balanced and flavorful way		DIETOLOGY	<i>T7.9aDiets with modified consistency</i>
		GASTRONOMY	<i>T7.9b The preparation of dishes with flavor in balanced diets with modified consistency</i> <i>T7.9c Advanced techniques to apply consistency changes in dishes</i>
		CHEMISTRY OF FOOD PROCESSING	<i>T7.9d Description of different typology of thickeners and their different chemical composition</i> <i>T7.9e Description of different rheological characteristic for typology of thickeners</i>
LO6-D2	0,6		T7.10
Know the chemical composition of fortified food and correctly perform fortification in meals		FOOD TECNOLOGY	<i>T7.10a Description of different techniques for fortifying food</i> <i>T7.10b The difference of chemical composition of fortified food and enriched food</i> <i>T7.10c The difference of mandatory fortification and voluntary fortification</i> <i>T7.10d The specific fortification for each food and the correct combination of the ingredients</i>



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			<i>T7.10e The identification of the nutritional need of the added component to fortified food to determine the exact quantity of ingredient</i>
		FOOD LAW	<i>T7.10f The US and EU Regulation on the addition of vitamins, minerals, and other substances to foods</i>
LO6-D3	0,6		T7.11
Apply creative and innovative kitchen techniques to adapt recipes for people with taste changes or consistency adjustments (including hot, cold, crisp, soft, moist, dry)		PHYSIOLOGY OF TASTE AND GENETICS	<i>T7.11a The physiology and the genetic of taste</i>
		SENSORY ANALYSIS	<i>T7.11b The techniques to define the level of perception of each taste, to define the level of perception of consistency and to define the level of perception of smell</i> <i>T7.11c How to recognize when taste changes or consistency adjustments are needed</i>
		GASTRONOMY	<i>T7.11d Creative and innovative kitchen techniques to adapt recipes for people with taste changes or consistency adjustments (including hot, cold, crisp, soft, moist, dry)</i>

MODULE 8

TITLE	COMMUNICATE, INTERACT AND COLLABORATE WITH CLIENTS AND INTERPROFESSIONAL TEAM
ASSIGNED ECVET POINTS	1,4
STUDENTS WORKLOAD	
TIME SCHEDULE	35

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T8
LO7-A-1	0,5		T8.1
Define a customer satisfaction protocol and place customer		ECONOMY	<i>T8.1a The different types of service and the correlation with the characteristics of the user</i> <i>T8.1b The main techniques and tools to design a protocol</i>



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service at the hearth of decision-making and activities			<p><i>T8.1c Techniques and tools for detecting expectations and analyzing satisfaction.</i></p> <p><i>T8.1d Procedures and techniques for organizing and drafting initiatives aimed at building customer satisfaction.</i></p> <p><i>T8.1e Customer segmentation and clustering techniques.</i></p> <p><i>T8.1f The basic elements of CRM (Customer Relationship Management) applied to collective catering</i></p> <p><i>T8.1g The peculiarities of the service offer in relation to the forecast budget</i></p>
L07-B-1	0,1		T8.2
Understand the impact of food and nutrition on social determinants of health and vice versa and leverage attractive taste to promote healthy recipes and healthier nutritional habits, also providing advice and guidance to other professionals on culinary matters to educate clients		COLLECTIVE NUTRITION	<p>T8.2a The impact of food and nutrition on social determinants of health and vice versa</p> <p>T8.2b The possible advice and guidance on culinary matters he/she could provide to support different professionals to educate clients</p> <p>T8.2c Nutritional principles and Guidelines for a healthy diet</p>
L07-B-2	0,1		T8.3
Prepare and apply client counselling, in collaboration with healthcare professionals, to promote healthy choices and behaviors		WORK PSYCHOLOGY	<p>T8.3a The basic notions of counselling</p> <p>T8.3b The main counselling techniques</p> <p>T8.3c The role of CGE in client counselling with respect to the role of healthcare professionals</p>
L07-C-1	0,5		T8.4



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Be aware of the main roles and responsibilities of health/social care professionals in food care and work coherently, acting as a member of an interprofessional team, maximizing the added value of each professional, and identifying possibilities for interdisciplinary development and cooperation		WORK PSYCHOLOGY	T8.4 Roles and responsibilities of the various staff members or collaborators and of health/social care professionals in food care
LO7-C-2	0,2		T8.5
Know the characteristics of successful teams and the main strategies for		WORK PSYCHOLOGY	T8.5 The main teamwork strategies and techniques in the daily working context T8.5b The main leadership strategies and techniques and rules to operate in teamwork T8.5c The behaviors that encourage or prevent effective teamwork

MODULE 9

TITLE	PROBLEM-SOLVING TECHNIQUES AND DIGITAL COMPETENCE IN DAILY WORK
ASSIGNED ECVET POINTS	3
STUDENTS WORKLOAD	
TIME SCHEDULE	75

LO CODE	ECVET POINTS	Discipline Sector / Branch of Knowledge	Teaching code, name and teacher T9
LO7-C-3	0,4		T9.1



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Know, select and apply the proper communication and mutual support techniques for inter-professional teams and change and observe behaviors		COMMUNICATION	<p><i>T9.1a The main communication and mutual support techniques for inter-professional teams</i></p> <p><i>T9.1b The main elements of organizational culture and communication</i></p>
LO7-C-4	0,4		T9.2
Apply creative thinking techniques developing creative solutions to abstract problems, propose solutions and discuss with goal-orientated attitude, reaching shared decisions, applying the main problem-solving technique		COMMUNICATION	<p><i>T9.2a The creative thinking techniques: Brainstorming, The Insights Game, Mood boards, Random Words (Random Input), Storyboarding, Metaphorical thinking, Mind mapping.</i></p> <p><i>T9.2b The main problem-solving techniques, such as DMAIC (Define, Measure, Analyze, Improve, Control)</i></p> <p><i>T9.2c The GOPP (Goal Oriented Project Planning)</i></p>
LO7-C-5	0,3		T9.3
Exercise management and supervision in contexts of work, reviewing and developing performance of self and others		WORK PSYCHOLOGY	<p><i>T9.3a The main techniques for staff management and supervision</i></p>
LO7-D-1	0,2		T9.4
Identifies opportunities to create value, develop creative and purposeful ideas, develop a vision to turn ideas into action, identify suitable ways for valuing ideas and assess consequences of them		WORK PSYCHOLOGY	<p><i>T9.4a What makes an opportunity to create value</i></p> <p><i>T9.4b Challenges in his/her own workplace that he/she can contribute to solving.</i></p> <p><i>T9.4c Needs in his/her own workplace and surroundings that have not been met.</i></p> <p><i>T9.4d The different roles the public, private and third sectors play in his/her region or country.</i></p>



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L07-D-2	0,2		T9.5
Identify individual and group strengths and weaknesses, mobilizes resources needed to turn ideas into action, be aware of the idea cost and financial implications and engage relevant stakeholders for the action	ECONOMY	<p><i>T9.5a The principles of circular economy and resource efficiency.</i></p> <p><i>T9.5b The main criteria to identify a cost of an idea cost and the financial implications</i></p> <p><i>T9.5c How to engage relevant stakeholders for a specific action</i></p> <p><i>T9.5d Public and private services which can support his/her value-creating activity (for example, incubator, social enterprise advisors, start-up angels, chamber of commerce).</i></p> <p><i>T9.5e How to draw up a budget for a value creating activity.</i></p> <p><i>T9.5f The different forms of value-creating activities (a business, a social enterprise, a non-profit organization and so on) and can have different structures of ownership (individual company, limited company, co-operative and so on).</i></p>	
L07-E-1	0,5		T9.6
Browse, search, filter and manage data, information and digital content, evaluating them according to the specific context of application	INFORMATION TECHNOLOGY	<p><i>T9.6a The information needs</i></p> <p><i>T9.6b The searches of data, information and content in digital environments</i></p> <p><i>T9.6c The access to these data, information and content, and the navigation between them.</i></p> <p><i>T9.6d The personal search strategies</i></p> <p><i>T9.6e The main national/regional healthcare tools for users' record</i></p> <p><i>T9.6f The main tools supporting the creation of a data collection (e.g. electronic sheets) in order to record client's history, in compliance with national/regional healthcare tools for users' record</i></p>	
L07-E-2	0,2		T9.7
Interact, share and collaborate through variety of digital technologies and select appropriate digital communication means for a given context	INFORMATION TECHNOLOGY	<p><i>T9.7a The main digital technologies and routine appropriate digital communication means for his/her own working context.</i></p> <p><i>T9.7b The main appropriate digital technologies to share data, information and digital content in his/her own working context.</i></p> <p><i>T9.7c Well-defined and routine digital tools and technologies for collaborative processes.</i></p> <p><i>T9.7d The role as intermediary for sharing information and content through well-defined and routine digital technologies.</i></p> <p><i>T9.7e Well-defined and routine behavioral norms and know-how in digital environments.</i></p> <p><i>T9.7f Well-defined and routine communication strategies adapted to an audience</i></p>	



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			<i>T9.7g Well-defined and routine cultural and generational diversity aspects to consider in digital environments</i>
L07-E-3	0,3		T9.8
Know the main privacy issues and protect his/her own end users' personal data and privacy in digital environments		INFORMATION TECHNOLOGY	<i>T9.8a Well-defined and routine ways to protect his own and users' personal data and privacy in digital environments</i> <i>T9.8b Well-defined and routine ways to use and share personally identifiable information while protecting myself and others from damages.</i> <i>T9.8c Well-defined and routine privacy policy statements of how personal data is used in digital services</i>
L07-E-4	0,5		T9.9
Know the main current digital tools dedicated to food composition, ingredients, combination, properties, treatments, regional resource		INFORMATION TECHNOLOGY GASTRONOMY	<i>T9.9a The main criteria to evaluate and select the main ICT tools dedicated to food</i> <i>T9.9b The main ICT tools dedicated to food, such as the ones for managing food composition, ingredients, combination, properties, treatments, regional resources</i>

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ANNEX 1 – QUALITY CONTROL CHECK LIST

Quality Control Check	
Generic Minimum Quality Standards	
Document Summary provided (with adequate synopsis of contents)	x
Compliant with NECTAR format standards (including all relevant Logos and EU-disclaimer)	x
Language, grammar and spelling acceptable	x
Objectives of the application form covered	x
Work deliverable relates to adequately covered	x
Quality of text is acceptable (organisation and structure, diagrams, readability)	x
Comprehensiveness is acceptable (no missing sections, missing references, unexplained arguments)	x
Usability is acceptable (deliverable provides clear information in a form that is useful to the reader)	x
Deliverable specific quality criteria	
Deliverable meets the 'acceptance Criteria' set out in the Quality Register:	x
Checklist completed and deliverable approved by	
Name: Gerardo De Paola	Date: 27/05/2022

ANNEX 2 – The Course Syllabus Template (PART B)

This document has been adapted from “Course Syllabus Template” included in ENhANCE Project Designers’ Kit <https://oot.enhance-fcn.eu/course/view.php?id=26>

PART B - TEACHINGS PLANS

Instructions: this part of the Syllabus will describe each Teaching of the course.

So, the following sections (falling under the title “Detailed Plan of Txx”) should be repeated **for each Teaching**

Detailed Plan of T1a

TEACHING CODE	E.g. T1a
TEACHING TITLE	E.g. Physiology of taste and smell
REFERENCE TEACHER	E.g. Prof. Sophia White
TARGETED LEARNING OUTCOMES	E.g. LO2-A-B-2, LO2-A-B-1, ...
REFERENCE MODULES	E.g. Module 1 + Module 2

A. LIST of CONTENTS:

Instructions: provide a list of the contents of the teaching

B. IMPLEMENTED EDUCATIONAL STRATEGIES:

Instructions: provide a general introductive description of the methods adopted in the teaching.

[General textual description]

Then flag the strategies you are going to implement as well as the specific activities or materials supporting the strategy (only when the method is implemented, otherwise skip them)

Check the coherence with the Flexibility Table / Flexibility tool with respect to the Educational Strategy

☐ Face-to-Face Class and webinars:

- ☐ Lecture
- ☐ Group Work
- ☐ Simulation
- ☐ Other (specify)_____

Additional information [optional].....

☐ Lab

provide details about the type of labs and activities



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☐ **Online learning (asynchronous)**

- ☐ Educational Materials on I-Moxx
Detail which Unit/Lesson
- ☐ Educational Materials on local e-learning platforms
- ☐ Online Group work
- ☐ Other (specify) _____

Additional information [optional but recommended]

you can provide details about the activities assigned to students or about the strategies adopted in group works

☐ **Work Based Learning**

Instructions: provide a general description of the way WBL is implemented and possible connections with other Teachings or Modules

C. REFERENCE MATERIALS:

Instructions: provide a list of the reference materials of the teaching, such as books, papers, links, etc.

D. ASSESSMENT:

Instructions: provide a general description of the way the ASSESSMENT is implemented

[General textual description]

Then provide a list of the assessment tools you are going to use. Note that the list should correspond to the information included Assessment tools provided by the project.

PART B - COURSE SCHEDULE

Instructions: provide a detailed course schedule.