

Report on CURRICULUM FRAMEWORK



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Project information:

Contract Number	2020-1-PL01-KA203-082292
Title of Contract	Smart learning for gait physiotherapy – a standardized tool for health higher education in Europe
Acronym	SMARTtherapy+

Report information:

Report Title:	Report on Curriculum Framework
Deliverable number	D 1.1.
Delivery date:	November 2021
Dissemination Level:	<input checked="" type="checkbox"/> Public <input type="checkbox"/> Confidential

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1. Introduction

The SMARTtherapy+ CURRICULUM is the first and crucial project deliverable (D1.1). According to curriculum content, the future project's actions focused on preparation of training materials are designed. Within the process of developing the curriculum, SUT was obligated to collaborate closely with AWF that is the Leader of Intellectual Output 2 (IO2) titled: "Creation and implementation of SMARTtherapy+ tool".

The main objective of the curriculum is a definition of the comprehensive harmonized guidelines and standards for gait physiotherapy education that can be the base to build a recognition framework on European level.

Particularly, the curriculum contains:

- Learning objectives of the course that fit to the recognized educational needs of gait physiotherapy (see report on survey results and report on focus group results).
- Course structure and specification including division of modules, units, characteristic of knowledge, skills, competences to achieve.
- Course content
- Learning methods and forms applied to achieve the defined learning objectives with special emphasis on using ICT and VR technologies.

2. Learning objectives

The aim of the SMARTtherapy+ course is the acquisition of knowledge, skills and competences of a trainee in the field of gait physiotherapy, observation, analysis and shaping gait physiotherapy protocols including innovative physiotherapy technologies and methods.

Particularly, the learning objectives are to:

- gain interdisciplinary knowledge on gait pathologies as well as biological, biomechanical, mental, social, and ergonomical fundamentals of gait physiotherapy;
- acquire the cognitive and practical skills to apply this knowledge to identify gait pathology taking into account area of medicine and type of patient, define personalized

physiotherapist protocols based on certain types of gait pathology and taking into account ergonomic conditions of physiotherapist's work;

- create competences that prove the ability to use these knowledge and skills as well as personal, social and/or methodological abilities, in work or study situations and in professional and personal development.

The special emphasis is placed on using dedicated case studies of gait physiotherapy that are crucial in providing practical and useful knowledge with its attribute to be simple to absorb, understand and transfer into practice.

3. Curriculum scope

The curriculum scope is defined according to a questionnaire survey and focus group sessions' (taken place in Poland, Italy and Germany) outcomes.

The **theoretical fundamentals** are following:

- Biological, biomechanical, mental and social determinants of gait physiotherapy,
- The gait pathologies, definitions, examples, causes, specifications,
- The basis of methods and protocols in gait physiotherapy.

The **medical areas** of case studies are following:

- orthopaedics,
- neurology,
- geriatrics,
- paediatrics.

The **gait pathology cases** are included in table 1.

Table 1. A framework of gait pathology cases

Area of medicine	Case study
Orthopaedics	Orthopaedic/Post-surgery patients after joint replacement surgery
	Orthopaedic/Post-surgery patients post-amputation
	Duchenne/Trendelenburg
	foot deformities e.g. clawed/hammer toes
	External/internal Rotation of hip
	Medial or lateral collapse of knee and/or ankle
	Walking with a small base of support
Neurology	Neurological patients with hypertonic gait
	Neurological patients with hypotonic gait
	Neurological patients with ataxic gait
	Gait re-education after stroke
	Parkinson's disease
Geriatrics	Geriatric patients with normal aging weakness
	Geriatric patients with loss of coordination
	Geriatric patients with risk of falling
Paediatrics	Pediatric patients with hypotonic gait due to cerebral palsy
	Pediatric patients with hypertonic gait due to cerebral palsy
	See the blue lines next to orthopaedics they are also common in children (e.g. metatarsus adductus, toe walking, flat feet, med./lat. Collapsed knee, femoral rotation)
	overweight

Additionally, the gait pathology cases can vary regarding anthropometric data, age, and gender, creating as a result a comprehensive educational case matrix.

4. Methodological aspects of training

Deming cycle concept for SMARTtherapy+

The main assumption of the SMARTtherapy+ training tool is to use the concept of a Deming cycle (PDCA (plan–do–check–act) ensuring the achievement of the required and assumed goals and guaranteeing continuous improvement of this tool.

The concept of using a Deming cycle is presented in the figure 1.

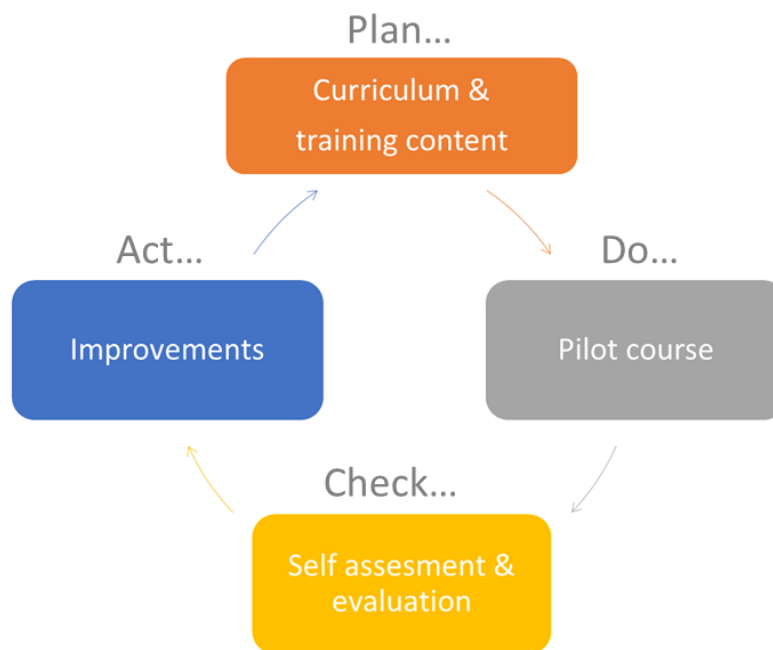


Figure 1. Using a Deming cycle in the development of SMARTtherapy+

The curriculum is a fundamental base for creating an innovative training content on gait physiotherapy. Both, curriculum and training content, reflect the **planned** use of the SMARTtherapy+ educational tool in clinical practice. Particularly, the plan includes learning objectives; course structure and specification; course content as well as learning methods and forms applied. The practical response to above mentioned plan of action is to **develop** a pilot

course. The aim of the pilot course is to provide future physiotherapists with the knowledge, skills and competences filling the educational gaps articulated within the evaluation of needs (international questionnaire and focus group). Self-assessment and evaluation are next steps that represent a way to **evaluate the** effectiveness of the training tool. The obtained data are compared to the expected outcomes giving the feedback on the level of possessing new knowledge, skills and competences by students. In the same time evaluation part of this phase is aiming to detect any changes or improvements of the course of both technical and content that are needed to **act** towards increasing the effectiveness of subsequent training cycles. It is important that the idea of the SMARTtherapy+ educational tool remains open to possible additions by new case studies or new topics. For this purpose, the CC license type is proposed for this course. Thanks to such a license the training materials can also be used as a starting point for creating modified own training material thereby offering the opportunity for project results to be maintained and explored in the long-term. The positive aspect of this is that the project can stay live and be developed over many years.

SMARTtherapy+ learning methods and forms

The unique feature of the SMARTtherapy+ educational tool is its dynamics of the training course and the interactive way of using training content, e.g., interactive key words within the text. Particularly, the case studies are represented by dynamic images, videos, animations, etc.

The specification of possible learning methods and forms that enhance learning processes in an innovative way, is presented. According to this specification, the possible uses for the SMARTtherapy+ tool were proposed to help in the selection of a specific learning method for specific training content and to optimize students' learning outcomes.

SMARTtherapy+ learning methods

Case study. Case studies¹ can be used as teaching tools and are based on analysing descriptions of selected, specific events or phenomena from a particular field. Comprehensive and multifaceted analysis of a specific case allows to understand phenomena analogous to the studied phenomenon, to shape experience, and, as a result, to develop the ability to take real actions in similar circumstances. The case study method meets the requirements of contemporary higher education, based on the model of competence education. It refers to the organization of such a didactic process in which a full and deliberate procedure of providing theoretical and professional knowledge, practical skills of performing a specific profession and professional

¹ Zalek A. Case study - an invaluable teaching tool. A guide for teachers. Około pedagogiki, 2021, 2

attitudes takes place. In such a model of education the analysis of authentic cases from the practice of a particular profession are used. Students can participate in simulated situations that bring them closer to the reality of a given profession (fictional case studies, sessions of decision-making and simulation games).

Gamification. Gamification or gamified learning is quickly becoming a trend in health professions education. The purpose of this method is to use elements of game design to enhance and support academic achievement. The attributes of gamification are as follows: Use of conflict/challenge and evaluation, especially competition and scoring. Gamification is a tool for improving learning outcomes by strengthening learning behaviours and attitudes toward learning². For this reason, gamification should be used more as a support tool for creating motivation and positive attitudes towards learning.

Possible use:

- Creation of different scenarios of interaction and communication between physiotherapists and patients, depending on the attitude, character and personality of the patient.
- Creation of a tool for repetition as well as evaluation and verification of student's knowledge in selected subject areas/topics.

Social learning. The learning process is based on observation - watching other people and determining what happens to them³. Learning means identifying with social process and other people who provide compelling examples, and people play model roles in how you think, feel and act. Social learning considers the personal characteristics of the learner, behaviour patterns and the environments. The emphasis lies on the role modeling as an active, dynamic process that involves observational learning and aims to explore the associated process⁴.

Possible use:

- Creation of training material using videos that show both a physiotherapist with their behaviour and patients. The physiotherapist, who is an experienced professional, provides a role model who serves as a mentor.

Soft Skills. Placing special emphasis on soft skills such as communication, problem-solving, and teamwork. Having soft skills, physiotherapists can fulfill a variety of roles successfully. They can

² van Gaalen, A.E.J., Brouwer, J., Schönrock-Adema, J. et al. Gamification of health professions education: a systematic review. *Adv in Health Sci Educ* 26, 683–711 (2021). <https://doi.org/10.1007/s10459-020-10000-3>

³ Practice Psychological Learning Theories: chapter 3: Applying Learning Theories to Healthcare (http://samples.jbpub.com/9781284104448/Sample_CH03_Bastable.pdf)

⁴ Horsburgh, J., Ippolito, K. A skill to be worked at: Using social learning theory to explore the process of learning from role models in clinical settings. *July 2018BMC Medical Education* 18(1)

adapt to the changes like patient attitude much faster, which gives them a competitive advantage in the long run.

Possible use:

- To strengthen personal and social soft skills of the SMARTerapy+ students within all levels of training activities.

Microlearning. Microlearning is a learning mindset that allows students to consume short knowledge packages quickly and in intuitively. The characteristics points of microlearning are following:

- a. time - relatively short, counted in seconds and minutes rather than hours;
- b. content - small portions of information, narrow topics, rather simple messages;
- c. form - fragments, episodes, knowledge pills, elements of larger themes;
- d. linkage to other elements - loose, general, each piece of knowledge can exist independently of the others;
- e. user input - microcontent is largely user-generated.

Possible use:

- To strengthen learning effectiveness by creating small knowledge pills within training material like **key ideas** describing in short and effective way the most important training content describing each unit or **extention activities**. Such a pill can contain mind maps, pictures, short stories, etc. Particularly these knowledge pills can be available on mobiles and other personal devices.
- To make a short self-assessment questionnaire.

Immersive technologies. Immersive technology means any technology that extends reality or creates a new reality using 3D space. Thanks to immersive technology, students can look in any direction and view content. Some types of immersive technology extend reality by superimposing digital images onto the user's environment. Others create a new reality by completely disconnecting the user from the rest of the world and immersing them in a digital environment. The example of immersive technologies is Augmented Reality (AR), Extended Reality (XR) or Virtual Reality (VR). Additionally, the possible way to incorporate iimmersive technologies is to use video registration and then create a virtual walk. This kind of dynamic images can also be supplemented by setting “hot point” whose function is to connect an image with additional learning content.

Possible use:

- To create a dynamic and interactive training content that is intuitive to learn and accommodate/assimilates new knowledge. These technologies support e-learning teaching forms in particular.

Interactive training content as a knowledge repository/store. The content is designed with contextual related parts of training material. The connection between them is made via hyperlinks. Thanks to the design of training content as a knowledge repository/store, participants have the opportunity to learn more about a topic that is partially included in different modules or units of the training tool. In particular, the hyperlinks can connect theoretical and practical component of training contents

Possible use:

- To create dynamic and interactive training content that is intuitive to learn and assimilate new knowledge. Particularly, these technologies support e-learning forms of teaching.

Scenario Based Learning (SBL). The idea of SBL is to use the probable or real-life situations to validate the learning comprehension and, more significantly, its eventual application⁵. Specifically; SBL provides real-world circumstances for exercise and easy assimilation of new knowledge through the use of narratives to guide students through certain situations which can be adapted based on the choices and responses of the students⁶.

Possible use:

- To create a dynamic and interactive training content of case studies. One case study can show different possible ways of gait physiotherapy that can be describe as a different scenario.

SMARTtherapy+ learning forms

E-learning. E-learning is teaching through the use of information technology. It means supporting the teaching process with personal computers, smartphones, tablets (m-learning) and the Internet. It enables the acquisition of knowledge without the need for physical presence in a lecture hall. The integrating element of remote education tools is an educational platform, which in most cases allows modular expansion of the content provided by the lecturer. It serves as a kind of communication medium that enables the establishment of remote communication between the lecturer and the student.

⁵ <https://www.eidesign.net/7-examples-scenario-based-learning-sbl-formal-informal-learning/>

⁶ <https://blogs.sussex.ac.uk/tel/2020/01/21/scenario-based-learning/>

In Europe, the most popular e-learning platform is the ILIAS platform, which has over 18,000 installations worldwide and is used by both public and non-public universities. Other e-learning platforms used in education include Moodle, Claroline, OLAT, Dokeos, ATutor and many others.

The main advantages of educational platforms include following features :

- Accessibility. Constant access via the web to the platform and the content posted on it at any time of the day, which allows students to choose their individual learning time, adapted to their (cap)abilities and needs;
- Mobility. Materials can be accessed from any location and with any type of device, such as a computer, laptop, smartphone, or tablet with Internet access
- Modifiability. Easy creating and editing of content published with the help of the platform, using various forms of presentation; the platform has a number of tools and features, the effective use of which may increase the attractiveness of the courses conducted;
- Easy communication. Enabling the system users - course participants and instructors - to establish quick contact outside the designated class hours, e.g., to inform students of any changes related to the course;
- Standardisation of the scope of knowledge. The course content can be divided into thematic modules, units etc., which makes it easier to define the scope of knowledge required by the teacher; this facilitates measurability and planning of the division of content into individual lessons.
- The possibility of simultaneous use of a lecture given by a specialist on a certain topic by students from different universities at an international level. This increases the availability of knowledge and thus proves the standardization of knowledge in a particular field.
- The possibility of broadcasting online physiotherapy treatments at the same time by students from different universities. This creates conditions for standardization of physiotherapy procedures at the educational level in the international area.

B-learning - Blended learning. Blended learning is integrated learning (hybrid learning). It is a method of education that combines traditional methods of learning (direct contact with the teacher) with activities conducted remotely by computer (E-learning). The ratio of individual elements is selected depending on the content of the course, students' needs and instructor's preferences. This method is highly effective, as it allows for a flexible way of building training, taking into account the objectives, subject matter and specificity of the industry and group

of participants. The advantage of B-learning is certainly the possibility to use remote and direct forms of activating students and online joint work of teacher and students.

M-learning - Mobile learning. Mobile learning means education (learning) via the Internet or the web using personal mobile devices such as tablets and smartphones to obtain training materials through mobile applications, social interaction and online educational hubs. It is flexible, allowing students/students to access education anywhere and anytime.

The most important advantages of M-learning are following:

- Access to training materials anywhere and anytime. As mobile learning is all about learning with a mobile phone using the internet, it can be accessed from anywhere in the world and at any time.
- Overcoming long distances. The main advantage of mobile learning is that it bridges large distances, regardless of where the student is, it is possible to access to the same content or tests at the same or different times. Distance is not an issue in mobile learning.
- Encourages students. There are many educational possibilities to learn or repeat the knowledge – (see Microlearning method).

Summarising the learning forms of the SMARTtherapy+ tool, the preferred form of training is e-learning (form). However, the training content can be use also by teachers in traditional classes using other forms like B-learning. Finally, M-learning can be also used for certain parts of the SMARTtherapy+ training tool like key ideas of a unit.

5. The structure of SMARTtherapy+ education tool

The course is divided into different modules depending on the topic. Each module is divided into learning units. Figure 2 shows a scheme summarizing the course structure.

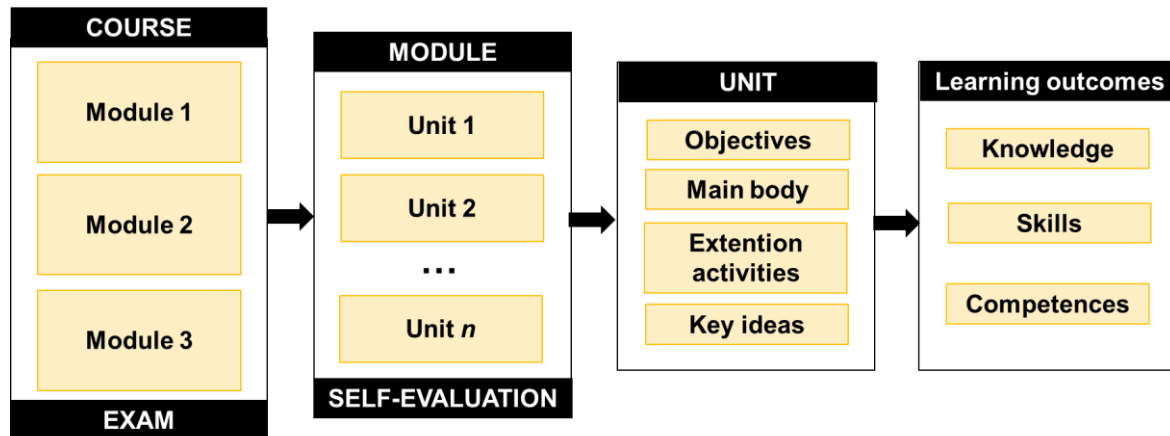


Figure 2. The structure of SMARTtherapy+ educational tool

Each unit starts with a short section stating the main objectives. This section is followed by the corresponding didactic unit and ends with a reinforcement activity which must be completed by the student using the online platform. This activity consists of an exercise automatically corrected by the system and the results are reported to both the student and the course facilitator/instructor.

Once the student has finished all the units of the module, it is necessary to complete the self-evaluation test. The student must pass all the tests on all modules before taking the final exam, which mandatory for obtaining the corresponding qualifications and certificate .

Within each module following pedagogical sections will be included:

- **Learning material.** Didactical digital material, in which both textual and graphical/visual information are combined to promote active learning, has the aim to provide students with the main required knowledge about each topic. The relevant innovative methods will be included into learning material that enable for intuitive searching for desired knowledge within the whole course material and natural or intuitive way of learning.
- **Video presentations.** Video as an introduction to particular topic.
- **Virtual library with bibliography and references.** Each topic includes both references cited into the text of training and additional bibliography recommended to expand the reading. The online structure of the course will permit that the citing is dynamically linked, so each citation can lead to its reference.
- **Images and illustrations.** All the contents are widely improved and explained with images, tables and graphs. The images will allow not only to explain and expand some



concepts treated in the text, but also to ease the reading and insert pauses in the learning process.

- **Insertions.** To avoid plain text and transform the linear reading into more active reading, the text in each topic has specific insertions with the purpose to reinforce the content. The main insertions considered for the course are the following:
 - **Concept.** Important concepts or citations.
 - **Examples.**
 - **Remark boxes.** Useful to emphasize or summarize some important concept that has been previously explained.
 - **Expansion of concepts.** Additional information, that it is not essential for learning basic concepts, but that can expand knowledge about a particular topic.
 - **Links** to related topics of both inside (training materials) and outside (open internet) of the training tool.
- **Glossary.** Each training module presents its own glossary of terms, through which the trainer can access the description of the most specific concepts of the material treated.
- **Multimedia materials:** a collection of multimedia resources which show in graphic way the application, in real context, of the contents described during the module.
- **Tutorials.** As a practical complementary documentation to each module, this didactic resource will be presented. The trainer can find in the Tutorials of the module a detailed explanation of some interesting procedure treated throughout it and that, due to its complexity and significance, is developed more in detail in this section.
- **Conceptual maps.** With the intention that the trainer has a space where he or she can find the conceptual schemes developed in the contents of each module, being able to make didactic use of them when he or she considers it appropriate, this didactic resource is presented within each training module.
- **Training guide.** The guide dedicated the target group of how to implement course content in practice. This includes pedagogical strategies, teaching methodology, innovative teaching methods and tools as well as the connection to with Qualification Framework for European Higher Education Area QF-EHEA.

6. The course curriculum framework- appendix

CURRICULUM FRAMEWORK

PROJECT NUMBER

2020-1-PL01-KA203-082292

PROJECT TITLE

Smart learning for gait physiotherapy – a standardized tool for health higher education in Europe

COURSE TITLE

Gait physiotherapy – practical aspects and innovations

LANGUAGE

English

ECTS CREDITS

5

Course title

Gait physiotherapy – practical and theoretical aspects and innovations

Framework

Course aim	<p>The aim of the course: “Gait physiotherapy – practical and theoretical aspects and innovations” is the acquisition of knowledge, skills and competences of a trainee in the field of gait physiotherapy. It focuses on the observation, analysis and shaping gait physiotherapy protocols including innovative physiotherapy technologies and methods.</p> <p>The learning objectives are to:</p> <ul style="list-style-type: none"> – gain interdisciplinary knowledge on gait pathologies as well as biological, biomechanical, mental, social, and ergonomic fundamentals of gait physiotherapy; – gain cognitive and practical skills to apply this knowledge to recognize gait pathologies taking into account the medical discipline and type of patient, define personalized physiotherapy protocols based on certain types of gait pathology and taking into account ergonomic considerations of the physiotherapist's work; – create competences to use this knowledge and the acquired skills as well as personal, social and/or methodological abilities, in work or study situations and for the professional and personal development. <p>The special emphasis is placed on using dedicated case studies of gait physiotherapy that are crucial in providing practical and useful knowledge with its attribute to be simple to absorb, understand and transfer into practice.</p>
Total workload in hours: teaching hours + individual study	50 hours teaching + 50 hours self-study
Modules and units	<p>Module 1: Fundamentals of gait physiotherapy – Interdisciplinary overview</p> <p>Unit 1: Biological/physiological determinants of gait physiotherapy</p> <p>Unit 2: Biomechanics of gait</p> <p>Unit 3: Mental and social determinants of gait physiotherapy</p> <p>Module 2: Methodological approach to gait physiotherapy</p> <p>Unit 1: Gait physiotherapy methodologies</p> <p>Unit 2: Technological innovations in gait physiotherapy</p> <p>Unit 3: Ergonomics and workflow in gait physiotherapy</p> <p>Module 3: Gait physiotherapy in case studies – learning from practice</p>
Target group definitions	<ul style="list-style-type: none"> – physiotherapy academic teachers – physiotherapy students – academic & medical authorities – medical/clinical practitioners – curriculum decision makers

Prerequisites for participation	<p>Areas of basic knowledge</p> <p>Obligatory:</p> <ul style="list-style-type: none"> – Human biomechanics – Locomotor system physiotherapy – Functional capabilities – English language skills (minimum level B2) <p>Optional</p> <ul style="list-style-type: none"> – Ergonomics
Academic tutors profiles	<p>Professionals in the fields of: advanced biomechanics, rehabilitation, physiotherapy, social science, pedagogics, ergonomics</p>
Pedagogical sections	<ul style="list-style-type: none"> – Learning material. Didactic digital material, combining both textual and graphical/visual information to promote active learning, aims to provide students with the most important knowledge about each topic. The relevant innovative methods will be included into learning material enabling intuitive searches for desired content within the whole course material and a natural and intuitive way of learning. – Video presentations. Video as an introduction to a particular topic. – Virtual library with bibliography and references. Each topic includes both, references cited into the text of training and additional bibliography recommended to expand the reading. The online structure of the course will permit that citations are dynamically linked, so that each citation can lead to its reference. – Images and illustrations. All contents are supported by images, tables and graphs. The images will allow not only to explain and expand some concepts explained in the text, but also simplify reading and to insert breaks into the learning process. – Insertions. To avoid plain text and transform the reading into more active reading, the text in each topic has specific insertions with the purpose to reinforce the content. The main insertions considered for the course are the following: <ul style="list-style-type: none"> – Important concepts or citations – Examples – Comment boxes. Useful to emphasize or summarize important concepts that have been previously explained – Deeper understanding of concepts. Additional information, that is not strictly necessary for learning basic concepts, but that can enhance the knowledge of one particular topic. – Links to related topics for material inside (training materials) and outside (open internet) of the training tool. – Glossary. Each training module presents its own glossary of terms, through which the trainer can access the description of the most specific concepts of the material covered. – Multimedia materials: a collection of multimedia resources which graphically show the application, in real context, of the contents described during the module. – Tutorials. As a practical complementary documentation to each module, this didactic resource will be presented. The trainer can find in the tutorials of the module a detailed explanation of specific procedures which are covered by



	<p>the course but due to its complexity and significance, are developed more in detail in this section.</p> <ul style="list-style-type: none"> – Conceptual maps. With the intention that the trainer has a space where he or she can find the conceptual schemes developed in the contents of each module, being able to make didactic use of them when he or she considers it appropriate, this didactic resource is presented within each training module. – Training guide. The guide assists teachers in how to implement course content in their educational practice. This includes pedagogical strategies, teaching methodology, innovative teaching methods and tools as well as the procedure of how to implement new topics into the study program that are compatible with the Qualification Framework for European Higher Education Area QF-EHEA.
Methods of training	<ul style="list-style-type: none"> – Case study - a method based on analysing descriptions of selected, specific events or phenomena from a particular field. Comprehensive and multifaceted analysis of a specific case allows for the understanding of phenomena analog to the studied phenomenon, to shape experience, and, as a result, to develop the ability to take real actions in similar circumstances. In such a model of education the analysis of authentic cases from the practice of a given profession are used. Students can participate in simulated situations that bring them closer to the realities of a given profession (fictional case studies, sessions of decision-making and simulation games). – Gamification - method to use of game design elements to enhance and support academic performance. The attributes of gamification are following: using conflict/challenge and assessment, especially competition and scoring. Gamification is a tool for improving learning outcomes by strengthening learning behaviours and attitudes toward learning. For this reason, gamification should be use rather as a support tool for creating motivation and positive attitudes to learn. – Social learning - learning is identified with social processes, considers the personal characteristics of the learner, behaviour patterns and the environments. – Soft Skills method- places special emphasis on soft skills such as communication, problem-solving, and teamwork. Having soft skills physiotherapists can fulfil a variety of roles successfully. They can adapt to the changes, like patient attitude, much faster, and which gives them a competitive advantage in the long run. – Microlearning - a learning attitude allows students to consume short knowledge pills quickly and in intuitive way. The characteristics points of microlearning are: time - relatively short, counted in seconds and minutes rather than hours; content - small portions of information, narrow issues, rather simple message; form - fragments, episodes, knowledge pills, elements of larger issues; linking to other elements - loose, general, each piece of knowledge can exist independently of the others; user input - microcontent is largely generated by users themselves. – Immersive technologies - means any technology that extends reality or creates a new reality using among others 3D space. Thanks to immersive technology, students can look in any direction and view content. The example of immersive technologies is Augmented Reality (AR), Extended

	Reality (XR) or Virtual Reality (VR). Additionally, the possible way of including immerse technologies is to use video registration and then creation of virtual walk. This kind of dynamic images can be also augmented by putting “hot point” that function is to connect with additional learning content.
The procedure of assessment and examination	<p>The procedure is divided into three components:</p> <ul style="list-style-type: none"> – Self-assessment questionnaires: the student should fulfil an assessment questionnaire and pass it before starting with the next unit of each module. The student can undertake the assessment as many times as wanted. The teaching system will display their successes and mistakes and, based on these answers, will give information about what content should be reviewed in the event of not attaining the learning goals/meeting the examination requirements. In the case of a formal training system, the realization of the self-assessment is not reflected in the final grade. – Self-evaluation tests: before finishing a module, a self-evaluation test should be performed before starting the next module. The self-evaluation tests will normally consist of questions with 3 or 4 answers requiring an analysis, from which the trainee must select the correct one. When the test has been completed, the application will correct it automatically and will show the mark obtained by the learner. – Final examination: after finishing the last module, the last step of the learning assessment is to take the final examination. It will consist of questions for every module, which will regard all training topics and the learner must select the correct answer from multiple choices. The final examination will not be available to the trainee at any time, but it must be done only during one previously defined day (the date of the final examination will be stated before starting the online course). The learner will perform it at home, but he or she will have only 45 minutes to complete it.
Technical infrastructure	e-learning Platform

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