



UPDATING THE PHYSIOLOGY OF CRANIOFACIAL GROWTH: AN IMMERSION COURSE

Format: Presence

Language: taught in english

1. General Information

1.1. Modality:	1.2. Organization form:	1.3. Total duration:	1.4. Schedule:	1.5. Frequency mode and organization:
Continuous training in FJO (other professional training not inserted in the national catalog of qualifications)	In presence	32 hours	9 a.m. to 6 p.m. (lunch break from 1 pm to 2 pm)	One module. Group training.

1.6. Context:

Craniofacial region is a complex part of the body and has connection with all body systems. Speaking physiologically we can say that stomatognathic system is the projection of brain on the periphery. We have a very sophisticated neuromuscular functioning and the growth and development of this region suffer too much the influence of epigenetic factors. The majority of bones that form the craniofacial region are classified as irregular bones and has huge influence of micro and macro environment on the determination of their final shape. Due to that many different approaches are proposed all over the world to guide or transform the direction of growth of stomatognathic structures. Due to that, the comprehension of the physiologic mechanisms involved on the facial shaping will make the decision among different approaches, much more simple for the ones that deal with different therapeutic arsenal. Since on the last 15 years many important concepts about bone physiology were updated, our aim is to provide to experienced professionals an immersion on these new findings.

2. Recipients

2.1. Recipients	2.2. Access requirements	2.3. Vacancies
Dentists	Degree in Dental Medicine	Minimum number: 10 Maximum number: 18

3. Training plan (contents, objectives, course load)

3.1. Course General objective/ Competences to be acquired

At the end of this full course, trainees will be able to:

- Give the attention to children oral health, since pregnancy to final occlusion establishment, using actions that aims to promote life quality. All the children are able to grow and develop in a health way, if the correct stimuli are given and the wrong stimuli are removed. If we achieve this balance, we will be able to reach the fullness of stomatognathic function
- To understand deeply the biological process involved on craniofacial growth, as well as the possible interventions that can be done, to solve the impairments that happen during this period to adopt the correct posture and therapeutic approach

3.2. Educational Strategic Objective:

At the end of this full course, trainees will be able to:

- Correctly identify the principles, characteristics and mechanisms of action of functional approaches;
- Correctly identify the preventive methods of malocclusion;
- Through the analysis of clinical cases, correctly identify which approaches can be suggested to achieve correct functioning of stomatognathic system.

3.3. Program Contents (modules, course load, trainers)

Nº	Name module and contents summary	Practical activities to be carried out	Couse load (T and P)
Module 1	<ul style="list-style-type: none"> Updating bone physiology, emphasizing the secretory and signaling capacity of bone cells, the role of neurotransmitters in bone and the implication of this knowledge on daily clinic. The role of muscle, tendons, ligaments and fascia on the establishment of bone shape. What is entheses and why it is considered the site where the Wolff's law take place? The sensorial receptors from muscles, tendons, TMJ capsule, tongue and mouth mucosa and its responsibility on the establishment of mouth functions since intrauterine period until complete dentition The role of periodontal proprioceptors on the construction of masticatory reflex and the importance of mastication on the facial shape. The growth and development laws revisited under the science evolution. The TMJ formation from birth to 12 YO and the relevance of functional stimuli to shape it. The correct basal bone relation as a pre-requisite to correct dental occlusion. How basal bone and alveolar bone react to stimuli. Evaluation of Functional Masticatory angles and protrusion trajectories. How do they influence the final decision of which appliance or intervention need the patient. Occlusal adjustment on temporary dentition: selective grinding and composite adding. Which rules must guide it? Discussion of the appliances proposed by Wilma Simoes and the similarity/differences among them and other therapeutic approaches 	<ul style="list-style-type: none"> Planas's functional masticatory angles evaluation Clinical cases demonstration 	<p>32h00</p> <p>(Theoretical=28h + Practical= 4h)</p>

4. Training development methodologies

Throughout the training sessions, the four pedagogical methods will be combined, using exposure and interrogation for the oral transmission of knowledge (with multimedia supports), so that the knowledge acquired in this module is consolidated. The demonstrative method is widely used not only through videos, real case.

The active method is favored since the target audience is professionally active and can thus exploit the real experiences of each one, as a way to approach certain contents and practices, promoting a very active participation of everyone.

5. Evaluation methodologies

5.1. Training evaluation

At the end of this full course, trainees will be able to:

- Evaluation of the reaction / satisfaction of the trainees and of the trainer (s) in the development and organization of the training, by completing a Satisfaction Questionnaire at the end of each module;
- Evaluation of the Trainer (s) performance, by the Pedagogical Coordinator, by completing the Trainer Performance Evaluation Questionnaire, as well as by the trainees through the Satisfaction questionnaire;
- Evaluation of the impact of the training through a survey carried out about 6 months after completing the course, accompanying the benefits of the course in the performance of functions, thus seeking to determine the transfer of learning to the real context of work, as well as the effectiveness / impact of training.

5.2. Learning evaluation

Each module has an evaluation, carried out according to the following:

5.2.1. Types of evaluation

This course has a formative evaluation, of continuous form throughout the sessions by direct observation and questioning, with the objective of giving feedback, of correcting the techniques, the competences to learn. It also has a summative evaluation, to be carried out at the end of each module through summative tests (written and / or practical).

5.2.2. Evaluation criteria

In the final classification of the course, the following criteria are taken into account:

- Attendance and punctuality– 10%
- Participation and commitment– 25%

- Acquisition and application of skills (average of the tests performed) – 65%

5.2.3. Evaluation Scale

1 - Very Insufficient | 2 – Insufficient | 3 – Sufficient | 4 – Good | 5 – Very Good (if different, update)

5.2.4. Performance

It is considered that the trainee completes the course successfully if he or she obtains a final grade equal to or greater than 3 (three).

6. Certificate

6.1. Type of document

- The trainees who successfully complete the modules receive a WSEI Certificate, according to the content of the Professional Training Certificate (Decree number 474/2010 of 8 July);
- The trainees, who do not finish successfully, can request to the Pedagogical Coordination a Declaration of Participation, in which the reasons for failing are described.

6.2. Conditions for issuing and delivering the certificate

- Certificates will only be issued at the end of the course, according to the educational achievement obtained.
- The certificate will be issued and delivered no later than one month after the end of the course, provided that the following conditions are met:
 - Completion of the modules successfully (only the completed courses are included in the certificate)
 - Compliance with the attendance regime
 - Have paid the contracted amounts referring to the attendance of the training;
- The Certificate is printed on paper, signed and stamped by the Management and can be picked up at our facilities. It may also be sent via Post Office upon request to the pedagogical coordination.

7. Attendance

- The trainees must comply with an attendance of 80% of the hours of each course and cumulatively of each module.
- The following are the reasons allowed as justification for absences: sick leave, marriage, and accompaniment of third-parties
- The fault justification process can be done by e-mail or telephone call, being preferred the use of the specific form that should be requested to the pedagogical coordinator.

8. Resources and spaces

8.1. Human Resources

For the good development of the training sessions, the following are part of the pedagogical team:

- Pedagogical Coordinator: Dr. Sandra Moisés
- Trainer (s) certified by the IEFP (CPC holders) with professional and pedagogical experience
 - Dr. Carina Esperancinha
 - Dr. Patrícia Valério
- Administrative support

8.2. Teaching resources, materials and facilities

For the good development of the training sessions, the following spaces and resources are assured:

- Theoretical training room with an area of 48m² (but with capacity for practical activities for example to work in casts) with the following characteristics and equipment:
 - Tables and chairs of high quality and comfort with capacity for 18 trainees, with 2.5 m² per trainee;
 - Desk of the trainer composed of table and chair and also a platform with an incorporated computer;
 - The trainer's desk is also equipped with a Camcorder;
 - White board and flipchart;
 - 1 LED screen of 84 inches with 4 inputs (projection / playback presentations, videos, live surgery images etc);
 - 2 LED screens of 55 inches each (projection / playback presentations, videos, live surgery images etc);
- Practical training room / Medical cabinet with 16.66 m² with the application of the "live surgery" method, allowing the trainees to attend live intervention in real cases and to practice:
 - Medical cabinet with a stomatology chair, 2 cameras in the ceiling with great zoom and sharpness capability and a ceiling microphone;
 - 2 wireless headset microphones with sound system in the auditorium and in the medical cabinet.
 - Intraoral and extra-oral cameras in the stomatology chair.
 - Multicam System
 - Canon Professional Camera
- All training spaces have: excellent lighting conditions (natural and artificial light), thermal and acoustic comfort, compliance with safety and hygiene rules;
- Access to WC without gender differentiation; access for people with reduced mobility;
- All trainees have access to the pedagogical documentation used during the training, namely manuals and / or presentations, made available digitally in the personal area of each trainee in the training management platform.